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Editorial.

OCTOBER ON THE FARM.

Harvesting.—During this month the farmer will gather in the remainder of the important crops of the season. The potatoes ought to have been dug in September, but there will be some who will not get ready to dig them until long after this month has come in—in fact, will not get ready before the snow flies, and the ground begins to freeze, and then, in a winter atmosphere, they will feel compelled to hurry them out of the ground while their fingers ache with the cold. When the farmer's fall work drives him so he has not time to harvest his potatoes before cold weather, as a rule, he had better hire it done at the proper time.

Corn that has been cut up and stooked in the field should be housed and husked out as soon as it is dry enough; by so doing, the corn is better and the fodder is more valuable. When corn is left stooked in the field after the first of November it often gets blown down and becomes so exposed to the weather that both the corn and the fodder is very much injured. For this reason it is very important to watch the progress it is making in drying, and to harvest it as early in the season as possible and have it properly dried.

The winter apples must be looked after very early in the month. To get men who will properly gather fruit is very difficult. Many will pick only such as come within easy reach and shake off the remainder, others who can be induced to pick them off, will throw them *into the basket as though they were stones, or will turn them into a barrel* permitting *them to drop from the top to the bottom, thus bruising every one of them and destroying their keeping qualities.* But little work on the farm is so badly done as that of gathering fruit. An apple should be handled with as much, and even more, care than eggs. Every apple that drops on the ground should be rejected as first quality, though it may be large and appear to be without a blemish, for there is not one chance in ten for it to escape injury by dropping. Winter pears need even more care than apples, and after being gathered should be carefully packed in dry, tight packages, and at once stored in a cool place where the atmosphere is very even.

Improvements.—October is one of the best months in the year for hard work. The cool bracing air makes the farmer feel strong and active; for this reason it is one of the best months of the year to make improvements on the farm. If the farm be a rocky one, every spare moment of this month should every year be improved in removing rocks until the whole farm be cleared. Any farmer with ordinary tact can, with a little practice, remove small bowlders very rapidly by blasting them. A few days each year spent in this work will soon very materially diminish the number of rocks on a farm, though it be a very rocky one, and thus a very desirable improvement will be made. October is a good month to clear the fields of stumps and roots, especially if in low land, the water at this season of the year being much lower than in the spring or early summer. The farm may be improved at this season by draining the low land. Very few farms exist that do not have in some portions of them some spot that is wet and needs draining, and it is generally the case that when it is drained it will make the most valuable land on the farm.

New fences may be set this month to good advantage, especially if to be built of stone. But stone walls for fences are very fast going out of date. They invite the briers and bushes to grow so near them that they cannot be destroyed by any farm implements worked by horse power, and if they are to be kept out by hand labor, they are very likely to be left until they have spread so far as to not only make a very unsightly appearance, but to seriously encroach upon the farm. A wire fence furnishes no encouragement for either briers or bushes, and, being so much cheaper than stone, that no doubt in future fifty rods of wire fence will be built to every rod of stone wall.

Road building can be done at this season of the year to very good advantage. This is a work that should not be neglected, for good roads are getting to be a necessity even on the farm, and it pays as well as most of the improvements that farmers make. With a little foresight very good roads can be built at a trifling cost. As a rule, it is not good policy to go over a hill when a land road can be made around it, even though it increases the distance tea rods. Valleys may sometimes be filled up to better advantage than hills can be cut down; for on farms where rocks are plenty it is a good way to get rid of them by using them to make the road bed, and fill up the depression where the road is desired.

Fat Hogs.—Hogs that are to be slaughtered before Christmas should be fed on plenty of corn meal, if it is desired to have the pork sweet and good; the mistake that some make is in keeping hogs on swill and very coarse food until a few weeks before they are killed. While it is very doubtful if it is good policy to feed city swill at any time, it appears to be very certain that if good pork is to be secured no such swill should be given for at least two months before killing time. The swill made on the farm being fed out as soon as made, is not so objectionable, but even this had better be given to pigs that are not to be killed for some months.

Hauling Muck.—If this work has not already been done, no time should be lost in securing a supply to last through the winter; it will be in much better condition than after heavy rains have come. Muck to be in good condition to use as an absorbent should be dry and fine; this condition is best secured by keeping it on dry land at least two years, that the frosts of winter may pulverize it and the heat of summer dry; thus prepared and kept where the rains cannot reach it, it has a wonderful power to absorb liquids; it therefore requires comparatively but a small quantity to absorb all the liquids of a large stock during the winter.

To use green, wet muck, as many farmers do, is of very doubtful economy, and farmers who get accustomed to using dry, pulverized muck will never feel satisfied to go back to green, wet muck.

SCABBY POTATOES.

During the last three or four years this disease, if it be a disease, has prevailed much more than formerly; not only have potatoes grown in old garden soil been affected, but those planted on new soil have in some instances been very badly injured. Two years ago we planted a field that was probably never planted before, and as it was manured with only ground bone, mixed with ashes, we expected to get potatoes not only free from scab, but of excellent quality. In this we were sadly disappointed, nearly every potato was badly affected with the scab, and the quality of the potatoes was very inferior. As the seed planted was very much affected by the scab, the conclusion naturally drawn was that this disease is one that is carried from the old potato to the new; so last year seed was selected that had no indication of the scab. Whether from this or any other cause, the result was quite satisfactory, the potatoes being nearly, though not entirely, free from scab. This year what was planted from my own seed, everything but the very best was rejected, the result was all that could have been desired, the potatoes being very smooth and free from scab. From these three experiments, one might infer that it was safe to conclude that the planting of scabby seed would secure scabby potatoes, and that the planting of seed free from scab would secure potatoes free from this disease. But unfortunately this does not always seem to be the case. This year we purchased some seed of the pearl of Savoy, which were so very scabby that at first it was thought best not to plant them, but finally concluded to, simply for an experiment. On digging them, a few weeks ago, we were very much surprised to find them entirely free from scab, and of a very excellent quality. Thus we are again left entirely in the dark as to the cause of the scab, or the remedy.

It is believed by some that the manure makes a difference; we are not prepared to say that it does not. Two years ago we used ground bone and ashes mixed, and had scabby potatoes; last year we used the same mixture and had good potatoes; this year for our own seed we used ground bone mixed with muriate of potash, and had good potatoes. On the scabby seed of the pearl of Savoy, through a mistake, nitrate of soda at the rate of a ton to the, acre was mixed with ground bone, yet the potatoes grew well, and were large, handsome, smooth potatoes.

It often happens that while a single experiment seems to prove clearly what we had best to do, a multitude of experiments confuse us so much that we are in doubt as to what is best in the most simple operations. Valuable agricultural information can only be obtained by experiments, very carefully directed by high intelligence, covering a considerable period of time, and the larger the number engaged in the same experiment the more correct and valuable will be the information obtained.

Fertilization.

WOOD ASHES.

BY PROF. R. C. KEDZIE, OF MICHIGAN.

Among the most common and the most valuable of special manures I place wood ashes. The amount of ash, and its relative composition, vary with the kind and part of vegetable burned, but we may safely take the ash of the body of a beech tree as representing the average composition of wood ashes. One bushel of ashes represents about two and one-half tons of dry body wood. Wood ashes contain all the required elements of plant nutrition except nitrogen. One hundred pounds of wood ashes contain sixteen pounds of potash, worth eighty cents; three and one-half pounds each, worth two cents; sixty-seven pounds of lime and magnesia, worth eight cents, and five and one-half pounds of phosphoric acid, worth twenty-six cents. If we had to buy in market in the cheapest form the manurial elements contained in one hundred pounds of ashes, the cost would be $1.16. Can you afford to throw away such valuable materials, or sell them for sixpence a bushel to the soap boiler? No argument is needed; here is the value and there is the selling price. Draw your own conclusions. Even where ashes have been leached to the last degree, till every soluble thing has been washed away, they still have value, for the phosphate and carbonate of lime and magnesia remain, and they are worth thirty-four cents for one hundred pounds, or $6.80 a ton. The market gardeners of Long Island knew their value and sent ships one thousand miles to bring the ashery heaps of Maine, even when they had to draw the ashes five miles before reaching the ships. But I will not consume your time to tell you how they do things down east, but will give you my experience with leached ashes in Eaton county. More than thirty years ago I settled in Vermontville, and bought a lot for my home, or as I expressed it to my wife, "I fenced in two and one-half acres of paradise." The soil was a stiff boulder clay, and had been exhausted by a rotation, consisting of wheat stubble and wheat. Here I planted every fruit-bearing tree and shrub of superior value, and in the selection of fruits "I withheld not my heart from any joy." I kept a cow and three horses, for in the thinly settled county horseflesh had to bear the brunt of hard work. I had plenty of stable manure and used it freely. But I soon found that the excess of stable manure gave my pear trees the fire blight, made my apples run to water sprouts and suckers and my grapes ran wild in wildwood. I then turned my attention to a heap of leached ashes near by, and applied seventy-five to one hundred bushels scattered over my field. No more fire blight or water sprouts, but golden fruit in bountiful supply. Like my ever-so-great grandfather Adam, I left my paradise, which passed through several hands, and at last came into the possession of Mrs. B., in exchange for a one hundred and sixty-acre farm. Her son told me she received more money from the sale of fruit from that two and one-half acre lot than she received from the one hundred and sixty-acre farm. The soil has not forgotten that liberal dressing of leached ashes, applied more than twenty-five years ago. Apply ashes liberally, especially if your soil is open and porous.

He also says "that all leached ashes can lose is a little of their potash, and all the other materials cannot be washed out by water." He says in regard to strawberry beds: "If the ground is in good condition, I should use little else than leached ashes." Again, in reference to German potash salts which are used on Jersey sands, "Better pay a dollar a bushel for good wood ashes."

Horticulture.

"PEAR BLIGHT."

BY PROFESSOR J. C. ARTHUR.

[Bulletin of the New York Agricultural Experiment Station.]

The progress of the work at the Station on pear blight this season has been substantial and practical. The work last year established the infectious nature of the disease. The large number of artificial inoculations made for this purpose were quite free from any danger of accidental contamination, as there was no spontaneous occurrence of the disorder in the orchard, or the immediate vicinity. This year the disease has shown itself in force, over one-third of the trees of the orchard being attacked, as well as the trees in adjoining grounds, and the nursery stock, hawthorn hedges, etc., of the vicinity. This opportune visitation has permitted a very thorough study of the progress of the disease in its virulent form.

Last year's work, as well as that of Prof. Burrill in Illinois some time since, indicated that the disease does not as a rule spread from limb to limb, and we have now discovered the reason why it does not, and, what is more important, have found out the manner and time of its real attack upon the tree—when it first finds entrance into the tissues and begins the work of destruction.

While taking a stroll the last day of June a solitary hawthorn shrub was met, with the larger part of the leaves brown and dead. Its odd appearance attracted attention, and a close inspection indicated that it was suffering from blight, a conclusion fully corroborated by a subsequent microscopic examination. In all cases the blighting had evidently begun at the end of the branches, and largely at the ends of the short spurs along the sides of the limbs. These spurs usually terminate in one or more clusters of flowers in the hawthorn, which at that time had long passed, and on the uninjured parts had matured into fruit fully two-thirds grown. On the diseased spurs, however, the dead flowers had not perceptibly developed beyond the condition at flowering. Here was surely a significant fact. The blight must have attacked these parts later than the period of flowering, which this year was from the middle to the twentieth of May. The germs found a favorable place of entrance through the moist surface inside the flower, and from that point passed down the flower stalk into the branch, and so on, killing the tissues as it progressed. In cases where it did not find entrance in this way, it had attacked those shoots of the present season which were making the most vigorous growth, as the length of the internodes and the number of partially grown leaves on the dying portion, readily showed. Subsequent inspection of several untrimmed hawthorn hedges near the Station confirmed all that has been said above, both in regard to the behavior and extent of the disease.

The orchard was at once carefully gone over, and evidences of blight were found in no less than one-third of the trees. The following varieties were among the blighted ones: Bartlett, Buffum, Doyenne Boussock, Flemish Beauty, Howell, Seckel, Sheldon and White Doyenne. In fact, the blight seemed no respector of varieties so far as our assortment was concerned, for all kinds on one side of the orchard were touched, while almost every tree on the opposite side remained free. It was found that in many instances the entry had been made through the flowers as in the hawthorn, but more often through the growing tip of a branch. An armful of blighted branches from Kieffer pears, which are not found in our orchard were brought me on July 24 as badly blighted as one often sees.

The blighted branches were removed with pruning shears on July 1, by a day laborer who was none too keen eyed. Ten days afterward the orchard seemed far more blighted than at first, and in many instances it had struck at the bodies of the larger limbs, and in one instance at the trunk below the limbs.

There was now a marked difference in the amount of blight showing on the several varieties. The Bartlett led them all, some of the larger trees being so much affected that when the diseased branches were removed there was but little of the top left.

At first this was puzzling. A careful study of the case, however, furnished a solution. Although all had probably taken the blight about equally, yet it had spread through the tissues at very different rates in the different varieties. The Bartlett showed itself the most susceptible. The apparently rapid blighting of large limbs was readily traced to the incursions of the disease through the short spurs near their bases. In the less susceptible varieties the disease had not travelled the whole length of the spur at the time of the first pruning, and was therefore all removed. In the most susceptible kinds it had gone the length of the spur and already entered the large limb when the spur was cut away. Here it did not take long to girdle the limb, prevent the passage of sap, and thus practically kill it. In the single instance in which blight appeared on the trunk or limbs below the branches it was perfectly evident that it had entered through a vigorous young shoot that had started out at that point this spring. The failure to cut it away before the blight reached to the trunk cost us the entire tree.

In addition to the out-of-door observations, a very extended course of experiments in the house has been carried on. It is only necessary to refer to these in the present connection in order to mention the artificial cultivation of the germs of the blight. These have been grown in sterilized infusions of corn, meal, hay, barn-yard manure, green fruits, starch, etc. The important point is that they will live and thrive outside the tree in dead organic substances.

These are the facts. They explain the phenomena of pear blight in this way: The disease is due to living germs. These germs can live and multiply indefinitely in any damp spot where there is decomposing vegetable matter. From such places they are raised into the air when dry, or carried up by moisture. From the air they lodge upon the trees, and when the conditions are favorable, pass into tissues and cause the blight. The conditions referred to are in general (1) very tender tissues, such as are found within the flower and at the ends of expanding shoots in spring, and (2) a moist atmosphere. No varieties are entirely blight proof, but the disease spreads so slowly in some that they receive little injury, especially when not making too rapid growth. The reason why the blight, when seen in July and later, does not pass directly from one limb to another, or from one tree to another, is because in the first place the germs cannot escape, being confined by the bark, or else escape in a viscid exudation which holds them firmly together; and, in the second place, there are very few places on the tree at this time of the year where the surface tissues are sufficiently tender for them to find an entrance.

Does not all this suggest some thoughts regarding preventives and remedies? Do not force the trees into too rapid growth by heavy fertilizing or otherwise. Place no confidence in sulphur, lime, or washes and application of any sort. Promptly remove every trace of the disease a foot or more below the lowest spot where it shows, and burn the branches.

— One great motive of the organization of so many corporations to engage in cattle raising is that by combining interests larger ranges may be controlled and the cost of handling cattle reduced.

Stock Department.

THE "JERSEYS."

BY HON. GEO. B. LORING.

At a meeting of Breeders of Jersey cattle at the Farm of D. Fuller Appleton, Esq., of Ipswich, in August, which was largely attended, the merits of the Jersey were fully discussed. Dr. Loring who was present, being requested to give his views, made the following interesting speech which we find in the Jersey Bulletin of Sept. 16th:—

In response to Mr. Appleton's call, Dr. Loring spoke of the interest he and every intelligent farmer should feel in the organization of an association for the improvement and development of the dairy stock of the country. The benefit derived from the introduction of foreign breeds of cattle into various States of the Union, all men recognize; and it would not be easy to calculate the amount of wealth produced by the early and later importations of the improved Shorthorns, and subsequently of Herefords, Devons and the Polled Angus, for beef, and Jerseys, Guernseys and Ayrshire and Holsteins, for the dairy. The production of a rapid-growing beef animal had become a most important branch of agriculture, and while it had enriched the other States, it had at last given method and profit to the vast ranges of the frontier whence the great stores of beef are now driven. The work of doing this has been comparatively easy. The organs required for the production of fat, and the strong and healthy animal organization which goes with them, are easily bred and not easily destroyed. The feeding of these animals for all breeds and races is a comparatively simple process, as was found when Hubbach was caught up from roaming the highways and used as the foundation of the most remarkable beef-producing breed in the world.

The success of this endeavor has encouraged us to believe that the same success would attend the creation of animals as perfect in the dairy as the heavy breeds are in the shambles. The importance of the dairy we all now recognize. To the northern and middle tiers of States it is invaluable. In the State of Iowa it saved agriculture from decay, when its wheat crop failed, and it increased the number of cows employed in its service from 300,000 in 1870, to nearly 1,000,000 in 1880, and took the front rank in this business in the competition of the centennial expositions. It has become more and more important, therefore, that a reliable dairy breed, capable of transmitting its qualities and functions, and improving the breed upon which it is crossed, should be introduced into all the best dairy regions of the country; and this is one of the most difficult objects the breeder can possibly undertake. While he can produce the phlegmatic qualities of the fat-producing animal and develop them by repose and an abundance of nutritious food, he find it almost impossible to transmit the delicate organization engaged in the production of milk. The fat cells are easily implanted and not easily disturbed—the glandular and vascular system employed in making milk are reared with difficulty and are easily thrown out of gear. Your fine dairy cow, which night and morning fills your brimming pail, is organized in the form of much of a flash of lightning, which rends the grove near which she is grazing, and her yield may be cut off fifty per cent. by this catastrophe, while she receives no manifest injury. Your three-year-old Shorthorn steer is grazing near by, and though every tree in the grove is split from the ground to the topmost bough, makes his growth and accumulation of fat without disturbance or cheek. So delicate is the organization of a dairy cow, that fright, a sudden change of temperature, and unusual amount of exercise, a supply of food of a new variety, may obstruct her work and render her comparatively useless. To know the best possible development of this organization is the object of the dairy breeder; and in this work he has met with wonderful success, and has given us an economical, thrifty, well organized cow, as well adapted to her work as the beef cow is to hers. And this has not been easily performed.

You have not forgotten the history of the Oakes cow—the prize cow of seventy-five years ago—her seventeen quarts of milk per day and her fifteen pounds of butter per week, a record which for a long time was unequalled. Her performance was indeed great, but in all the qualities which make up a desirable dairy cow and a valuable animal organization, she was lamentably deficient. Her head was clumsy and misshapen, her eye dull, her jowl thick, and her horns heavy and unsymmetrical; her reach was not fine; her chin was rough, the top of her shoulders rough to a deformity, her back rising in hilly undulations from her chine to her tail; her fore-quarters so loosely put on as to seem to have been thrown on in coarse lumps, her hind quarters thin and feeble, and her carcass entirely out of the proportions of a thrifty, easily fed animal. She lived, fortunately, at a time when food was abundant and cheap. And this was the queen of the dairy three quarters of a century ago.

Now, on these grounds, what a contrast do I find to-day! And the breed so admirably collected, bred by Mr. Appleton and his associates, that the cow, whose weekly yield of butter is forty-six pounds, has sprung. Before her the performance of the Oakes cow sinks into insignificance. In surveying the choice herds which have been shown us here to-day, I find the model upon which the modern dairy cow, with all her excellence, is made. There is a cow in these pastures whose development is the admiration of every intelligent beholder. Examine her general form and size, and you are at once satisfied. Her head is strong, her eye mild and intelligent, her horn of delicate proportion, her neck just strong enough to indicate a good constitution, her shoulders are loose and open but firm, and possess, at the point, that cup-like indentation belonging to every good dairy cow, and seldom found where beef is most prominent. The spine of this cow is open along the processes, and her back is uniform, even and strong; her rump is long and level, her ribs are flat, sharp on the edge and open; her skin is mellow; her leg is small below the knee and hock; her fore foot is broad and her hind foot is long; her carcass is deep but not too capacious; her udder is well shaped and capacious, and what is usually called the milk vein indicates a copious vascular organization. This cow, whose name I understand is Rioter Alphea, perfect as she is, is so organized that her qualities are as sure to be transmitted as are those of her great beef-producing rival which laid the foundation of that wonderful and invaluable Duchess family of the Shorthorns.

And this, I think, is the province of the Jersey. She is really the universal dairy cow of our country. There are other valuable breeds, I know; but go where I may, I find the Jersey taking the front rank. At the north she flourishes under the care and protection of the good farmer, and at the south she finds all those mild influences which develop her into the most appropriate animal for that section. Crossed upon the so-called native, the Jersey produces the most desirable animal for the use of the family and the farm—improving, when judiciously selected, every breed into which the blood is introduced.

While assenting to this high place to the Jersey, the value of other breeds need not be overlooked. The copious and heavy milkers of Holland and Scotland, the old milking families of the Shorthorns, the hardy butter cow of the Guernsey islands, all have their place, and have all contributed to the production of the American dairy cow. But it has remained for the Jersey, both in this country and Europe, to engraft her qualities on other breeds and to add to their value by the admixture of her blood. In fact one of the best known of these breeds, now recognized as distinct, has received one strong point of its excellence from a Jersey strain poured in long ago when the foundations of the breed were laid. We all recognize in the perfect Jersey a model cow, and hence her capacity to transmit her valuable qualities, not only to her own family but to all those with whom her family is crossed. In the early days of Jersey importation this valuable quality and capacity were not recognized. But the influence of the American climate and feeding on the succeeding generations has been such that now, in every section of the country, hardy families are found, and in almost every dairy herd their unmistakable marks are found also. I only regret, said Dr. Loring, that we did not all learn this lesson earlier. Dr. Loring concluded with an interesting account of General Grant's humor at a dinner of the New York farmers, when he inquired whether his friend Darling could possibly be serious in claiming for one of his Jersey cows a yield of seven hundred and fifty tons of butter in one year. The question has never been answered.

The Poultry Interest.

STEALERS OF VITALITY.

[Rural New Yorker.]

The amount of vitality deliberately stolen from our domestic animals by parasites cannot be computed. There is nothing more disgusting than these wretched, crawling creatures that delight in filth, and die in cleanliness. No domestic bird or animal can prosper with these blood-thirsty robbers fastened upon it. Few respectable human beings ever know what it is to be covered with these parasites. The story told by those who have the misfortune to be cast away on desert islands of all breeds and races is a comparatively simple process, as was found when Hubbach was caught up from roaming the highways and used as the foundation of the most remarkable beef-producing breed in the world.

The success of this endeavor has encouraged us to believe that the same success would attend the creation of animals as perfect in the dairy as the heavy breeds are in the shambles. The importance of the dairy we all now recognize. To the northern and middle tiers of States it is invaluable. In the State of Iowa it saved agriculture from decay, when its wheat crop failed, and it increased the number of cows employed in its service from 300,000 in 1870, to nearly 1,000,000 in 1880, and took the front rank in this business in the competition of the centennial expositions. It has become more and more important, therefore, that a reliable dairy breed, capable of transmitting its qualities and functions, and improving the breed upon which it is crossed, should be introduced into all the best dairy regions of the country; and this is one of the most difficult objects the breeder can possibly undertake. While he can produce the phlegmatic qualities of the fat-producing animal and develop them by repose and an abundance of nutritious food, he find it almost impossible to transmit the delicate organization engaged in the production of milk. The fat cells are easily implanted and not easily disturbed—the glandular and vascular system employed in making milk are reared with difficulty and are easily thrown out of gear. Your fine dairy cow, which night and morning fills your brimming pail, is organized in the form of much of a flash of lightning, which rends the grove near which she is grazing, and her yield may be cut off fifty per cent. by this catastrophe, while she receives no manifest injury. Your three-year-old Shorthorn steer is grazing near by, and though every tree in the grove is split from the ground to the topmost bough, makes his growth and accumulation of fat without disturbance or cheek. So delicate is the organization of a dairy cow, that fright, a sudden change of temperature, and unusual amount of exercise, a supply of food of a new variety, may obstruct her work and render her comparatively useless. To know the best possible development of this organization is the object of the dairy breeder; and in this work he has met with wonderful success, and has given us an economical, thrifty, well organized cow, as well adapted to her work as the beef cow is to hers. And this has not been easily performed.

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Now, on these grounds, what a contrast do I find to-day! And the breed so admirably collected, bred by Mr. Appleton and his associates, that the cow, whose weekly yield of butter is forty-six pounds, has sprung. Before her the performance of the Oakes cow sinks into insignificance. In surveying the choice herds which have been shown us here to-day, I find the model upon which the modern dairy cow, with all her excellence, is made. There is a cow in these pastures whose development is the admiration of every intelligent beholder. Examine her general form and size, and you are at once satisfied. Her head is strong, her eye mild and intelligent, her horn of delicate proportion, her neck just strong enough to indicate a good constitution, her shoulders are loose and open but firm, and possess, at the point, that cup-like indentation belonging to every good dairy cow, and seldom found where beef is most prominent. The spine of this cow is open along the processes, and her back is uniform, even and strong; her rump is long and level, her ribs are flat, sharp on the edge and open; her skin is mellow; her leg is small below the knee and hock; her fore foot is broad and her hind foot is long; her carcass is deep but not too capacious; her udder is well shaped and capacious, and what is usually called the milk vein indicates a copious vascular organization. This cow, whose name I understand is Rioter Alphea, perfect as she is, is so organized that her qualities are as sure to be transmitted as are those of her great beef-producing rival which laid the foundation of that wonderful and invaluable Duchess family of the Shorthorns.

And this, I think, is the province of the Jersey. She is really the universal dairy cow of our country. There are other valuable breeds, I know; but go where I may, I find the Jersey taking the front rank. At the north she flourishes under the care and protection of the good farmer, and at the south she finds all those mild influences which develop her into the most appropriate animal for that section. Crossed upon the so-called native, the Jersey produces the most desirable animal for the use of the family and the farm—improving, when judiciously selected, every breed into which the blood is introduced.

While assenting to this high place to the Jersey, the value of other breeds need not be overlooked. The copious and heavy milkers of Holland and Scotland, the old milking families of the Shorthorns, the hardy butter cow of the Guernsey islands, all have their place, and have all contributed to the production of the American dairy cow. But it has remained for the Jersey, both in this country and Europe, to engraft her qualities on other breeds and to add to their value by the admixture of her blood. In fact one of the best known of these breeds, now recog-

— In light sandy or gravelly soils, grass soon runs out; these must then be plowed up, manured and cultivated two or three years in hoed crops, then grain is sowed, followed by grass seeds. The land after this will produce an abundance of hay for some time.

"Fixing the Price of Milk."

IMPORTANT DISCUSSION

BETWEEN THE

Producers and Contractors

AT THE MEETING

—OF THE—

N. E. Milk Producers' Association

—AT THE—

Hall of the Ploughman Building, 45 Milk Street, Boston, Friday, Sept. 18, 1885.

A Large and Enthusiastic Gathering.

PRESIDENT GEO. M. BAKER in the Chair.

Phonographically reported expressly for the Massachusetts Ploughman.

CONTINUED REPORT

FROM LAST WEEK.

Committee of Conference.

THE CHAIR.—I will appoint as the committee N. H. Clark of Atkinson, N. H., S. P. Pierce of Lincoln, Alvah Wheeler of Concord, Henry Graves of Hilton, N. H., and Mr. Sampson of Southboro'.

[On motion made and duly put by Mr. Sampson, the president and secretary were added to the committee, but both declined to serve, and Mr. Davis was added to the committee by the chair on proper motion.]

THE CHAIR.—I would like to direct the attention of the gentlemen here to some articles in the *Massachusetts Ploughman*. There is an article copied from the Worcester Spy, and also in our paper in Dorchester, in relation to the standard of milk. It is the business of the farmers to day to follow that up, for there are many influences working against the present standard. Unless we sustain ourselves in this struggle against our inspector at Lowell, all our labor will be lost. If we sustain it, it throws the door wide open for every honest man to do the business, and we can compete with the present system; and whereas, this summer it has cost me 4 cents a quart to get the milk from our doors to our customers in Boston, we know very well that it can be done for two. But in order that only honest individuals and honest cows contribute to this business it is necessary that we should have a thorough inspection of milk. It seems to me that we can easily establish a plan for such a thorough inspection. But it can not be secured otherwise until we are gray and our children are gray. You will also see in the *Massachusetts Ploughman* another article on the adulteration of milk, telling how it is done—and a little editorial. Any man who has any influence should see that he throws that influence on this side.

The Milk Standard.

MR. CLARK.—I should like to say a word in connection with these remarks. It is said that many dairies do not come up to the standard. A dairy in Stow, which I have had the pleasure of visiting last summer to make the standard twelve and one-half solid parts instead of thirteen. When I got into the Boston market with the milk, I found that we didn't want the standard any lower. Some said that Massachusetts was going to lower it. I said that when that was done, it would be time to consider it. I don't believe that Connecticut ever will change the law. Dr. Davenport says that where one dairy comes under thirteen, there are ten that go over it. If we can get an improved poor milk, but in nine cases out of ten they will go over. I don't go for lowering the standard of anything which man eats, drinks or wears.

THE CHAIR.—With the permission of the convention, I should like to read a few figures I gathered this morning. Here is the average of all kinds of milk from all grades and breeds as experimented upon by Mr. Babcock, our present inspector. His analysis of all kinds of milk shows that there are 14.50 per cent. of solids. Dr. Davenport, on the same kind of milk, makes it 14.50, and Dr. Sharples makes it 14.49. Now when we say that they want to lower the standard to 12.50, it shows that they want more milk than the cows give. The average of winter dairies' milk, Dr. Davenport tells me, was 13.75 for matches from Dr. Jordan's dairy, and if you would like to ask him any question, he will be ready to answer. I think I have stated the exact figures. If not, I should like to hear what they are.

Mr. FITCH.—I am sending my milk in here by a pedler who is complaining all the time that the standard is too high and that it ought to be reduced. He says he has not had his milk analyzed, but he knows the standard is too high. I tell him that if he will have it analyzed and it does not come up to the standard, I will father it. Another party I have been sending to says he is satisfied the standard is not too high.

Mr. PENDLETON.—The standard is too high for those who make skim milk.

Mr. FRENCH.—It is very desirable that the standard should be as high as good milk will make it, but it is also desirable that the standard should be the same in all States. I have understood that it is lower by about two per cent. in New York than it is in New Hampshire and Massachusetts. I saw it stated in a farming paper this week that Dr. Loring says that eleven per cent. is about the average that milk will stand. I don't know anything about it myself.

THE CHAIR.—That is the very thing I referred to in the *Massachusetts Ploughman*. It originated in that paper and is now published by mistake. There is not a word of truth in it.

MR. CLARK.—The standard in New Hampshire is the same as in Massachusetts. We don't care anything about what they do in New York. Milk is over comes into Massachusetts. Whether the standard is nine or three, don't trouble us. New Hampshire and Massachusetts usually stand together.

MR. WHEELER.—I would like to have this meeting invite Dr Davenport to make some remarks on this question and tell us first in regard to the report of the State Board of Health upon the milk which has been analyzed at Amherst. Their report, taken in comparison with the State standard, contradicts the idea that 13 per cent is best.

THE CHAIR.—If no objection is made, we will hear Dr. Davenport.

Remarks of Dr. Davenport.

Dr. DAVENPORT.—I have, as some of you know, examined a great deal of milk in the past two years, and in my opinion 13 is just the right figure. My experience has been that milk of all kinds has averaged 14.50 per cent. My successor, Dr. Babcock, found in his experience that it was 14.55. Professor Sharples found it to be 14.49. So it seems to me that it is pretty nearly a unanimous verdict, as near as you can expect, in regard to the standard of milk. In the last three months I have been examining nearly all the milk that comes into Boston. I have examined two or three thousand dairies. Large contractors have sent samples of their milk to my office and I have tested them, and instead of that statement in that paragraph already mentioned been correct, it is quite otherwise. I have found less than one-fourth of the whole amount that has come to the present standard, and I am sorry to say that the greater part of that which came from New Hampshire was lower than that which came from Massachusetts. Whether there has been as much of the lower standard in Massachusetts, I cannot say, but it has been my good fortune not to find it.

MR. CLARK.—I would like to ask whether it is poor milk or whether it has been watered.

Dr. DAVENPORT.—Taking the average, less than one-fourth of the milk is below the standard.

MR. CLARK.—Then some undoubtedly has been watered.

Dr. DAVENPORT.—Yes, sir; and the last three months have changed my ideas of human nature a good deal. Formerly I thought that all of the trouble was with the milkmen in Boston, but I have come to the conclusion that human nature is the same in the country as it is in Boston. I did not find a dairy in my personal experience, which I knew to be straight, which fell under 13.

A MEMBER.—How is it at Amherst?

Dr. DAVENPORT.—They have got some miserable cows there which the State ought to sell. If the quality of the milk is to be lowered by the poor quality of those cows, then the State ought to sell them. The standard ought not to be below 13. In no State that I have known of is the standard less than 12.

A MEMBER.—Are they not thoroughbred Ayrshires that give that milk?

Dr. DAVENPORT.—I believe they are of the Ayrshire breed. I am not sure.

THE CHAIR.—I think they are Holstein.

A MEMBER.—I don't believe that thoroughbred Ayrshires will ever fall below the standard. I keep them and know about them.

Dr. DAVENPORT.—The present standard is a trifle more than ten per cent. below the actual average, and that is margin enough. I find that some naturally poor milk falls to 12½ per cent. of total solids, and falls below 3 per cent. of fat. The great trouble in Boston is the deficiency of fat. In regard to the standard, there has been a remarkable coincidence between the seller of the milk being notified that the milk was not quite what it should be and an immediate rise in the quality of that milk. In one case I asked how it was. The seller said he did not know. He had read the notice to his cows, and he supposed they had acted accordingly. As long as we can get good milk we ought to do it. In the first place, the contractors have been inviting a most vigorous inspection of the Boston milk. They have supposed that Boston had the poorest milk. Human nature is not to make the product much better than is required. Milk is sold by measure. An artificial selection has been going on for years until we have got breeds of cows that give first-rate skim milk. It is the skim milk that we object to, whether it is obtained from the cow or from the skimmer.

If there is any point which any gentleman is interested in and would like to ask about, I shall be happy to answer him. There is one point further: I think it is greatly for your interest to maintain the present standard, but you should have the execution of the law in intelligent hands. The inspector should be able to discriminate between milk naturally a little below the standard and that artificially lower. The honest owner of an unfortunately poor cow should not be made to suffer. The dealers have had nearly all the dairies examined. My successor in this city, Professor Babcock, is doing good work, and we see that the milk is of fair quality in Boston People to-day are going to have good milk.

Mr. FRENCH.—Provided a quantity of cream is added to one can, would it not raise the standard?

Dr. DAVENPORT.—Certainly, sir. But there is this point to notice—a high per cent. of cream or butter fat goes always with a high percentage of other solids. In common native cows I find an average of 13.75 per cent. of milk solids, of which 3 8 is butter fat. When you get the fat above 4 per cent., as it is in some Jersey cows, you will find that the other solids lose by that excess. The others would probably lose what you get above that.

Mr. FRENCH.—What would be the percentage of pure cream, with no milk?

Dr. DAVENPORT.—One hundred per cent. Cream is not worth the name unless it has 25 per cent. of solids, and it goes as high as 90 and 95. As you said "pure cream," of course it is 100 per cent. Material is sold for cream all the way from simple milk to real cream. The average in 13½ milk solids will be about 3½ fat and the rest other solids. Again, the more frequently a cow is milked the better is that milk. If the time between night and morning is less than that between morning and night, the milk which is obtained in the morning will be better. The shorter the interval the better the milk.

THE CHAIR.—Will Dr. Davenport give way for a moment.

SECRETARY SMITH.—As interesting as this discussion is, we must adjourn. I move that Dr. Davenport be invited to meet with us this afternoon and that we adjoin to half past one

[This motion was immediately carried.]

AFTERNOON SESSION.

THE CHAIR.—The meeting will please come to order.

Mr. BARTLETT.—I understand that Mr. George Moyes, the editor of the PLOUGHMAN, has rendered the use of this hall free of charge. I move that a vote of thanks by this association be tendered to Mr. Moyes for the use of this fine hall

SECRETARY SMITH.—I second the motion.

[The motion was carried unanimously.]

THE CHAIR.—If there is nothing else before the meeting, I will invite Mr. Alonzo S. Fiske, of

prevail. We are sent here to name a price, even if it is high. If we go home without action, it looks like boys' play.

MR. PIERCE—The motion is made to dissolve this meeting. If it is not carried for the reason that the convention thinks it may be able to agree with the contractors, or that it will accept their proposition, it had better be clearly understood. Thirty-five cents is binding on the farmers if they accept the proposition. It is binding in court. But the contractors can pay thirty-two or thirty-three cents and the farmer is obliged to take it.

MR. CLARK—I don't understand that to be so.

MR. PIERCE—I say if the convention agrees to it.

THE CHAIR—Are you ready for the question?

MR. BARTLETT—This is a milk convention of the producers' association and of the contractors' association for the purpose of agreeing, if possible, on the price of milk. The contractors, on their part, make a proposition of thirty-five cents. It is not a direct offer and is not binding. But it was offered, feeling that thirty-five cents would be a fair and equitable price. Now, on the part of the New England association, if the convention dissolves and each man goes his way, it makes the association accept the proposition. But if the association in its wisdom concludes that it is too low, as representatives of the farmers from Massachusetts and New Hampshire, this association should name a price they can accede to, and then, if there can be no agreement, if the meeting is dissolved there is no obligation on the part of the producers to furnish a single can. If the convention dissolves at the present stage, we, as representatives of the farmers of the two States, consent to that proposition and substantially agree to it. So I believe that there should be a price named to get at the sense of the farmers as to what would be satisfactory, or right and just.

A MEMBER—I move as the sense of this meeting that the price be 37 cents. I think it would be an honor to the association.

MR. CLARK—I will withdraw my motion if there is another to come before the house.

MR. SAMPSON—I move as an amendment to the motion that the price be 38 cents.

THE CHAIR—Gentlemen, you hear the motion that we have 37 cents, with an amendment that it be 38 cents. That is debatable. Are you ready for the question?

MR. SAMPSON—If we are going to raise the price at all, we should raise it a cent more.

MR. CYRUS CARTER—I hope the amendment will not prevail. I believe that every person is ready to sell for 37 and that the contractors will pay 37. I hope the motion will prevail. Seven cents rise between summer and winter would be about right.

MR. WHEELER—I offer the following resolutions:

Resolved, That it is the sense of this convention that the price of milk should be 38 cents for the next six months.

Resolved, That we recommend to every farmer to produce as small an amount of milk as possible, and not to make any price for milk for even one month in advance.

We stand just here to day. The New England Milk Producers' Association is in danger of demoralization. The contractors know it as well as we do. See the way the thing was managed last spring. A stood in the rear of the hall and told them that if that action should be taken the farmers would live every man for himself. The contractors would engage the largest dairies and when they had got what would carry them through, the prices paid to the large dairies would fix the price paid to the small ones. That thing is going on about in the same way. The farmers to day have not any confidence in the association. Last spring the vote of the convention was that the president and secretary be a committee to confer with the contractors. Each branch of the association was to be notified of the result. We have not got our notice yet. [Laughter.] I say the farmers have not any confidence in this association, and you might as well talk right out about it. This association is in no condition to withhold its milk, and the farmers are in the hands of the contractors just as much as ever. The association don't amount to anything, and you know it. We can say that we recommend that the price should be 38 cents, and that we will not make any more milk than we are absolutely obliged to. Let this organization take hold of this thing like men, and let every man pledge himself to stand by the association in all its action. Then you will have some power. Now you don't. Let delegates come in to the meetings with credentials, and don't admit anybody else. Keep these other fellows out and make it a secret organization. You can't do anything any other way. This organization as it is now don't amount to anything.

THE CHAIR—I will call the gentleman to order.

MR. WHEELER—I am talking to the resolutions before the house. I offer this as a substitute that we recommend to the farmers to make as little milk as possible.

A MEMBER—I second that resolution.

SECRETARY SMITH—Notice of the action of the committee appointed last spring was telegraphed to twenty points within fifteen minutes after the adjournment of the meeting.

THE CHAIR—The question is on fixing the price at 37 cents, with an amendment making it 38.

[The amendment was put and lost. A count was called for. Only a few of those present rose and the result was seven yeas to eleven nays. The main question, making the price 37 cents was then put and carried with very few negative vote. Mr. Wheeler's resolutions were then rejected by a large vote without debate, and at 4.10 the convention adjourned.]

Important Correction in Report.

Editor Massachusetts Ploughman:

Dear Sir: I trust that in your next issue you will correct one error regarding a statement of mine at the Milk Producers' Meeting of September 18.

In order to show the low estimate placed upon surplus milk at flush times when the market is overstocked with all dairy products, I stated distinctly that to supply a possible deficiency in our ice cream business we purchased of one contractor at his car all his surplus milk for one month, varying from nothing to one or two hundred cans per day, at 13½ cents per can, and as it was nearly all churned into butter and went into cold storage, I thought we lost money on it even at that very low price. Your reporter, in the confusion outside, probably misunderstood my figures and gave it to the public as 1000 to 1200 cans, and the price 33½ cents, which you will perceive is very wide of the mark, and wholly misleading.

Yours, very truly, J. F. FRENCH.

Northampton, N. H., Sept. 28, 1885.

The Ploughman.

BOSTON, SATURDAY, OCT. 3, 1885.

☞ *Persons desiring a change in the address of their paper must state where the paper has been sent as well as the new direction.*

MEETING OF FARMERS.

There will be a MEETING OF FARMERS in the New England Agricultural Hall, *Ploughman* Building, 45 Milk St., Boston, Saturday, October 3d, at ten o'clock in the forenoon. Subject for discussion, "*Vinegar.*" Dr. H. L. Bowker of Boston will lead. All are invited.

The new season for the FARMERS' MEETINGS in Boston will be opened on Saturday of the present week, October 3d., with a meeting in the hall of the *Ploughman* Building at 10 A. M. The subject for discussion will be "Vinegar,"—one that will be sure to command the attention of the whole farming community by reason of the operation of the present law on its manufacture and of the very large apple crop which invites orchardists to convert it largely into cider vinegar. The discussion is expected to be thorough, and by experts in the business. The law, also, will inevitably come in for its share of just criticism at the hands of the suffering farmers. Good speakers will be heard, and as large as possible an attendance is cordially invited to this meeting, which is to initiate the new series for the fall and winter.

THE SEPTEMBER REPORT of the Department of Agriculture on the condition of crops in America and Europe, and on the freight rates of transportation companies, is of timely interest. All the staple crops of the country are reported upon—corn, wheat, cotton, oats, potatoes, sweet potatoes and fruits. On the subject of Intensive Farming, the Report quotes Mr. Edward Atkinson as saying, in his address before the American Association for the Advancement of Science, at Ann Harbor, Mich.: "If Indian corn derives its nitrogen from the atmosphere, it may safely be affirmed that a three year-old steer can be produced upon the waste land of New England at this time at less cost than the same steer can be produced from Texas by way of the western plains to the Brighton abattoir, on the basis of the present charge for Texas cattle on their native plains." Mr. Atkinson's idea is that of a "beef factory" for New England. To this end he would supply potash at low cost from Germany, cheap phosphate of lime from the deposits of Ottawa, or the Carolina phosphates, which would give large production to New England sands without the artificial supply of nitrogen. This production is estimated at thirty tons of maize forage to the acre, to be preserved in silos and fed at the rate of fifty to sixty pounds of ensilage daily, with a small ration of cotton-seed meal. Intensive culture on an extensive field, and with such systematic division of labor as to obtain the benefits of the factory system, is the sum of his system.

EASTERN ROUMELIA, still a Turkish province where the recent peaceful rebellion broke out at Philippolis, was greatly excited when the treaty of Berlin was promulgated in July 1878. The greater part of the population are Bulgarians and Christians, and their desire is to be united with the new principalities, an independent existence, of Bulgaria. The Turkish population left Eastern Roumelia in a panic at the prospect of a Christian ruler. But their fears were allayed by a different appointment and the Russian troops vacated the province they had been occupying. The Bulgarians, however, have constantly been at work trying to excite the people to throw off the Turkish yoke. There has been no real commotion among them since 1880 till now. The population is at present 850,000. The bloodless revolution of last week in the northern portions of Eastern Roumelia was not wholly unexpected, from the fact that so much restiveness has been apparent for the last four years. Prince Alexander rules over the Bulgarians, and is ready, with his people, to welcome any Roumelian defection. The mystery is to know what part, if any, Russia had in this recent movement. And the next most interesting question is to know how England will view the matter and what she will do. The recent conference of the Emperors may have brought this revolutionary movement about. The Sultan has applied for aid to the signatories to the Berlin treaty, but it is doubtful if she receives any.

THE MILK QUESTION.

This important, nay, vital, question is at present attracting more of that wide attention in the community which it deserves, and seems to be turning on what shall constitute the fair, legal standard of purity for milk. There are conflicting opinions, each apparently well sustained, on the percentage of normal solid matter which all milk ought to contain that is offered for sale to the public. One opinion is, that everything which may naturally be called milk, the genuine and unadulterated product of the cow, should be rated as above the accepted standard; while the other opinion is that poor milk is poor milk, and bad milk is bad milk, no matter whether it be natural milk or has been in any way artificially adulterated. The existing law is held to incline decidedly to the latter opinion for its interpretation, leaving those who argue against bad milk as intrinsically a bad product to make out their case, and thus secure the amendment of the law so as to suit their conclusion. It is chiefly over the present meaning of the law, therefore, that the dispute rages. Of its real purpose to protect consumers against poor and impure milk, there can be no question; the question is simply whether it can be applied to the poor *as well as* the impure article.

The Boston Advertiser professes not to be able to see why, if the object of the law is to protect consumers from having sold to them, without their knowledge, milk which is unwholesome or lacking in nutriment, "watery" milk from a diseased or abnormally developed cow should be looked on as any less undesirable for consumption by children or sick persons than good milk watered or skimmed by hand." It thinks there is really but one answer to the question, namely, that "bad milk, whether its thinness is due to the pump or the peculiar condition of the cow, should not be permitted to be sold under the name of pure and wholesome milk;" and that "the true standard to be set by the law is one that will exclude all watered milk, and all natural milk which is no better than watered milk." The supporting reason is, that natural milk, when it is as watery as watered milk, is just as bad for consumers, and therefore they ought to be equally protected against its bad effects. The law now fixes thirteen per cent. of solid matter as the standard for wholesome milk, and requires that amount of richness in it when offered for sale to consumers. The Medical and Surgical Journal gives the opinion that the natural product from what are known as the skim-milk breed of cows should no more be tolerated than the artificial skimmed milk of the average cows.

TECHNICAL SCHOOLS FOR YOUTH.

Since penning our last article on the desirable character of these schools, we have observed that the question is gaining public attention constantly, even awakening discussion in the Southern States. It would seem to be almost a necessity as a part of the proper education of the people of that section, black and white. We note, for instance, that the Georgia Legislature is considering the advisability of appropriating funds for founding a State school of technology. One of the journals of that State remarks that the Legislature evidently thinks the State is too poor to give anything for such a purpose. Thereupon a Boston daily replies that this may be a good reason for holding back this year, or it may not; but it regards it as "a fact patent to all thoughtful people that the opening of such schools as go by the name of technical schools would be of great advantage to the South, in affording its young men an opportunity to acquire at home the education that will specially fit them for useful activity in developing the resources of that region, and taking the lead in the great industrial enterprises which are now being undertaken."

That is a fair statement of the case, for a brief one, in regard to the South. The subsequent observation is a peculiarly felicitous one also for the same section, that if there were anywhere in the South an institution like the Massachusetts Institute of Technology, or the Columbia School of Mining, or the Worcester School of Mechanic Arts, it would be a very profitable investment of money for the general prosperity. But it is much for the Legislature of a Southern State to be engaged in giving the subject serious consideration. The more it is discussed the more feasible and desirable it will be found to be for all practical reasons. When we came to reckon up the mines, the quarries, the forests, the manufactories, the railroads, the bridges, the telegraphs, and the still larger number of other interests and industries which combine to give to Georgia the deserved title of the Empire State of the South, it cannot fail to strike us as impressively obvious that technical education at home, duly applied to the vast resources of such a State, will result in such a rapid and unexpected development of them as will turn the prose of its size into veritable romance.

THE MAINE STATE FAIR.

The twenty-fifth Maine State Fair was held last week at Lewiston, opening on Monday, the 21st of September. The energy and enterprise displayed by the managers secured for the exhibition a great and deserved success. Marked improvement was to be noted in the furnishings oi the park, including the grand stand, the stalls for cattle, the exhibition hall, and the grove and camping ground. The entries were more numerous than at any former exhibition by the Society, there being registered 1279 cattle, sheep, swine and poultry, 284 exhibition horses and 83 trotting horses. The stock exhibition was pronounced truly magnificent, showing conclusively that the breeders of Maine were out with a full and perfect representation of what constitutes the living wealth of the farm. Enthusiasm in this leading department of an agricultural exhibition was at a high pitch. The result will not fail to advance Maine to a higher rank than ever as a stock-breeding and stock-keeping State. Public attention was particularly bestowed on the occupants of the stalls at the fair. No better evidence could be asked of the growing interest taken by the people in farming operations within the State.

The progress made within the last few years in dairying is fairly shown in such an exhibition as the one at Lewiston. Five million more pounds of butter are made than were made thirty years ago, while the cheese production has fallen off one million pounds in the same time. Steers and oxen have also diminished in number, while improving in quality. All the fairs held in the State in the past five years show this. Careful breeding and judicious feeding are now the rule with farmers who claim to keep abreast with the times. Maine is claimed as specially a dairy State by those who are best competent to know, and the tendency is a visible vindication of their judgment. Comprising the collection of herds were Shorthorns, Holsteins, Ayrshires, Guernseys, Jerseys, Herefords, and grades. The show of horses proved that Maine is able to take rank with any State in the breeding of horses along any chosen line a specialty. The trotting track has been greatly improved, and the races were enjoyed by an enthusiastic multitude. The exhibition of poultry showed, in point of quality and numbers, that this most fascinating and profitable branch of farming is being carried to perfection in Maine very rapidly. The show of swine was excellent. Dairy products were a marked feature of the exhibition. There was speaking by attractive orators, and the attendance proved the complete success of the Fair.

NEW HAMPSHIRE STATE FAIR.

THE NEW HAMPSHIRE STATE FAIR was held at Manchester last week, and although the management had arranged for a great exhibition, the result, gratifying as it was, failed to come up to the high standard of their expectations. The weather proved decidedly unpropitious; Wednesday, which was intended to be the greatest day of the exhibition, having been cold and stormy and in all possible respects forbidding. The programme for that day had to be set aside for the day following. The lack of interest shown by the farmers in the fair was greatly regretted, since they must be convinced that none can do for them what they must begin with doing for themselves. The criticism made was on the variety and fullness of the exhibition, which were not up to the highest agricultural standard in New Hampshire. The poultry show, however, was a marked success. A woman made one of the best exhibits of cattle and sheep. Swine were represented by a new and large breed, the Lincolnshires, Spanish merinos, were the most popular in the sheep exhibition. A very large display of vegetables was made. The track races formed a highly attractive feature of the exhibition. There was an illumination of the grounds, track and exhibition halls, in the evenings, with electric lights and Chinese lanterns. The fair closed on the 25th, with races.

THE RHODE ISLAND STATE FAIR.

The Rhode Island State Fair came off last week on the Society's grounds near Providence, the attendance on Thursday being estimated at not less than 13,000. The trotting at Narragansett Park track was good, and was witnessed by a large multitude. The display of agricultural and domestic products was large and superior, eliciting general encomiums. The strength and resources of the Society were well illustrated in every department of the exhibition, which was successful in the largest meaning of that term.

THE WORCESTER FAIR.

The Worcester Agricultural Society held its sixty-fifth annual cattle show on Thursday of last week, opening with a comparatively light list of entries and a corresponding attendance. There was no formal address made, nor did the customary ploughing match come off. There were some two hundred head of cattle on the grounds, of which number ninety were thoroughbred. A large number of people was present to witness the trotting in the afternoon. The rather light attendance at the annual fair of this flourishing society is in large part to be ascribed to the fact that Worcester had been for some time engrossed with her famous Musical Festival which came on at the same time with the exhibition.

THE GROTON FAIR.

The farmers of Groton held their thirty-fourth annual fair on Thursday, the 24th of Sept. The weather, although not of the most favorable character, was not discouraging. The exhibition in all respects was good; to quote the language of James P. King, Esq., at the dinner table: "The cattle exhibition far exceeded that of Essex county at Newburyport, and the value of the animals exhibited was ten times that of the Essex county exhibition." Six hundred plates were set for the dinner and all were taken. Col. Needham, the President, welcomed the strangers, and congratulated the farmers. Speeches were made by Messrs. King of Peabody, Charden of Lowell, Ladd of Lowell, Boutwell, Palmer and Jacobs of Groton, and Governor Stone of Pennsylvania, who was a native of Groton.

BRISTOL COUNTY FAIR.

THE BRISTOL COUNTY Agricultural Society held its sixty-second annual fair the present week, beginning on Tuesday, at Taunton. The opening day witnessed a much larger gathering than was usual. The upper floor of the spacious hall was devoted to the fine art gallery, fruits, vegetables and flowers, the display of each of which was extremely fine and full. The exhibit was pronounced by far the largest and best ever made by this prosperous Society. The cattle show was in all respects a superior one, there being one hundred and eighty animals on exhibition. One exhibitor of Ayrshires and Jerseys contributed one-fourth of the whole of this department. The collection of horses, sheep, swine and poultry was an exceptionally fine one. President Philander Williams's exhibit of poultry was chiefly confined to Asiatics, and was very attractive. The race course was well attended, and the interest was well sustained. Premiums were awarded for ploughing with steers and horses, fat cattle, breeding horses and colts, breeding cattle, heifers and calves. Business was generally suspended in Taunton on the second day, nearly every manufactory was closed, and extra trains were run on the railroads entering the city. The domestic and heavy manufacturing departments were overrunning, many making exhibits who had never done so before.

ESSEX COUNTY FAIR.

THE ESSEX COUNTY Agricultural Society held its sixty-fifth annual exhibition at Newburyport on the 22d and 23d days of September, the attendance being large and the entries numerous. The list of premiums awarded perhaps best shows the character and extent of this highly successful exhibition, which included fat cattle, working oxen, milch cows, bulls, heifers, horses, sheep, swine and poultry, ploughing matches with oxen and horses, agricultural implements, dairy products, bread, honey, canned fruits, etc., fruits, flowers and vegetables, and works of domestic industry, together with fancy work and works of art. The departments were all well filled, and the gratification evinced by those in attendance was highly satisfying to the management. Mr. Benjamin P. Ware, the president of the Society, made an appropriate address of welcome. Essex County is strong agriculturally, and prides herself on her good farming and the consequent prosperity of her farmers. If nothing but the Society's annual fairs were to be taken as evidence of the high condition of the farms in the county, that would be sufficient to satisfy every one of a fact which has long since won a renown extending far beyond local limits.

PLYMOUTH COUNTY FAIR.

The Plymouth County Agricultural Fair was held last week on Thursday, nearly 5000 people being present. A cavalcade of horses on the track opened the exhibition in the morning, which was continued until 11 A. M. with a view of family and matched horses, of colts and horses raised in the county, and a show of stock and the award of premiums. The annual dinner was given at 12.30, the large dinner hall being completely filled. President Elbridge Cushman, after the courses were finished, made an address of welcome to the guests present, and then proceeded to introduce President George B. Loring, ex-Gov. Long, Benjamin P. Ware, and Thomas Weston, Jr. There were races on the track in the afternoon, besides a ball game, which added to the attractions. The speaking after dinner was of a high order, and chiefly appealed to all citizens to familiarize themselves with all local and State agricultural interests. Plymouth County was set down as one possessing superior natural advantages for the pursuit of agriculture. The Fair fully answered the expectations of those who had chiefly interested themselves in making it so gratifyingly successful.

VACCINATION IN MONTREAL.

THE DISTURBANCES IN MONTREAL on account of compulsory vaccination are not, upon reflection, to be credited to race prejudices, such as are well known to exist between the English and French classes of the population, so much as to the ignorance of the latter who are making this violent resistance, and to the actual feebleness of the local government. Nothing more could be needed to disclose to the intelligent class of the population the peril in which they are placed by this concerted determination to resist sanitary requirements which are alone adequate to preventing the result of a loathsome depopulation. The local authorities have but one course open to them, which is to suppress this mob resistance to the law of common safety; if they hesitate, and thus fail to do it, there is no knowing to what extent a devastating contagion may go, nor what may be the baneful results of its free march. Other cities and countries have almost an equal interest in this vital issue, as they also have a right to command the Montreal authorities to extirpate the disease. The rest of the civilized world looks on with astonishment to find a whole population thus rising to defend their ignorance of what modern science has done for the protection of human life against the foulest of all known diseases.

THE CENSUS OF MASSACHUSETTS for 1885 is studded with points of interest. Not quite three hundred out of the three hundred and forty-eight cities and towns of the State have as yet accurately reported their population as it was last June, but enough returns are in to enable us to estimate the population of the State as compared with the census of 1880. Barnstable and Dukes counties have lost, the former some 6000, the latter some 200. Franklin county gains nearly 1000. Hampden gains largely in its cities, but loses several hundreds in its small towns. Hampshire holds its own. Berkshire gains several thousands in its larger towns, but loses in almost all the smaller ones, the gain in the whole county being less than four per cent. in five years. Bristol gains nearly twelve per cent., and in nearly every town. Essex fails to gain in proportion, Lawrence even losing slightly, while Lynn gains 7000. Plymouth gains about twelve per cent., Brockton increasing 7175, or fifty-three per cent. The steadiest gains have been made in the suburbs of Boston. Among the gaining cities are Chelsea, Revere, Waltham, Cambridge and Newton. Lowell, Worcester, Fitchburg, Clinton and Webster have gained all the way from seven to twenty per cent. Most of the rural towns in Worcester county have lost. Boston has gained about ten per cent., the increase being chiefly in its newer wards and suburbs. Railroad towns gain, while the others diminish. The estimated total population of the State is about 1,950,000, or very nearly 2,000,000. There are 240 persons to the square mile. The population of the State has doubled in the last thirty-five years.

☞ *The Magazine of Art*, for October, is an especially fine number, in text and illustrations. There are five full page illustrations, one of which, Whistler's full lenght portrait of Pablo Sarasarte, the violinist, is not only worth the price of the number, but of a year's subscription to the magazine.

The opening paper by Claude Phillips, is on that strange German genius Arnold Bocklin, of whose peculiar work a number of admirable illustrations are given. Following this is a paper on Granada, by David Hannay, showing by pencil as well as pen the moorish beauties of that old Spanish town. Then comes a paper by J. Arthur Blaikie, "Reconciliation," with one of Walter Crane's admirable decorative pictures. Harry W. Barnett continues his stories of "The Romance of Art," selecting the pathetic story of Alexander Alberoni and Jeanne Cuinio for his subject. A valuable paper on "Celtic Metalwork" follows. W. Martin Conway strikes "A Note on Marbuse," the Flemish master, whose "Adoration of the Magi" has been attracting the admiration of English amateurs of art. "Current Art" is cleverly dissected with reproductions of the recent pictures in the Royal Academy and Grosvenor Gallery, then comes an interesting description by Cosmo Monkhouse of Burmantoft's Faience. Miss A. Mary F. Robinson contributes four of her Profiles from the French Renaissance, and there is an intertaining paper on "Female Head Gear." The department of notes is well filled with news and crisp comment.—Cassell & Company, Limited, New York, $3.50 a year in advance.

☞ *The Quiver*, for October, is laden with good things and attractive in the utmost variety. A Hero's Helmet, A Sceptical Nobleman, Northern Methodism, With the Hop Pickers, The True Story of Lottie, The Beloved Disciple, A Song of a Lily, Leal and True, Scripture Lessons for School and Home, Sunday Thoughts in Other Lands, Restful Talks in the Rush of Life, Cross Purposes, The Christian Life, Historical Flowers, What is the Drift of Evolution? In the Pine Woods, The Mount of the Lord, Short Arrows, "The Quiver" Bible Class, and two serial stories, make up its contents. Published by Cassell & Co., limited, New York.

☞ The list of agricultural machines and implements to be found at the extensive warehouse of *Parker & Wood*, 49 North Market street, Boston, is one of great attractiveness for farmers, who will not fail to profit by its suggestions. It includes such approved machines as the Ross Ensilage Cutter, the Whitman Cider Mill, IXL Swivel Plow, the National Reversible Sulky Plow, Monarch Potato Digger, the Hildreth Horse Powers, and Sower. These machines are all specially seasonable now, and therefore the attention of farmers is solicited to them, as they are presented in this enterprising firm's announcement of their stock of agricultural implements and machinery in another place.

☞ *The Storer Windmill*, an advertisement of which is to be found in another column, has fairly earned the title of a prize-winner, having attained on its merits the highest at the Centennial Exposition at Philadelphia and the highest award at the Massachusetts Charitable Mechanic Association's Exhibition in 1884, besides a number of other occasions. The Storer is for sale by Henry W. Peabody, the New England Agent, Mason Building, Liberty Square, Boston, and has been in use for over thirteen years in residences, dairies, town and village water service, public institutions, and for other purposes. The advertisement deserves especial attention.

☞ *C. H. Thompson & Co.*, 71 Clinton and 80 and 82 South Market streets, Boston, offer to the farming community at this season a full and valuable assortment of working implements, among which are the Perfect Side-Hill Plow, the Common Sense Potato Digger, Daniel's Ensilage Cutter, Horse Powers, and all kinds of Ensilage Machinery, besides a complete stock of agricultural implements, seeds, and wooden ware. Thompson & Co. are a reliable and enterprising house, whose stock is at all times maintained at the highest standard as regards improvement, variety and fullness. See their advertisement elsewhere.

☞ *The Kemp Manure Spreader* is manufactured by the Richardson Manufacturing Company of Worcester, Mass., and is the identical machine which every farmer needs in applying manure this fall for seeding down or top-dressing. It economizes time, saves labor, and therefore saves money. A crop is largely increased by this method of spreading manure, which is done evenly, and therefore to the best advantage and the most profit. The manufacturers present an illustrated advertisement of it in another column.

—The Swatara and the Yantic, laden with silver from the New Orleans mint to the treasury in Washington, arrived safely at the Washington navy yard. It will take the present force at the Treasury Department about two weeks to count the coin.

—Much of the so-called English cheese is made in this country and shipped to England, whence it is returned, much improved by the sea voyage. As every voyage adds to the richness of their flavor, cheeses are sometimes shipped backward and forward two or three times.

READ AND RUN.

—In New Orleans, so far, rain has fallen on 220 of 270 days.

—It is said of New York Bay that it is paved with tug propellors.

—Snow fell freely in Vermont last Wednesday, which is decidedly early.

—The Annual Musical Festival at Worcester last week was a great success.

—The deaths in Europe from smallpox are reported to be 60,000 annually.

—There are about 250,000 wage workers' laborers and artisans in Chicago.

—The road races of the Massachusetts Bicycle Club were held last Saturday.

—England is now invited to send over a yacht named the Cavalier to beat the Puritan.

—Mr. W. H. Vanderbilt paid a visit the other day to his $25,000 mausoleum on Staten Island.

—A bill for the gradual abolition of slavery has passed the Brazilian senate and chamber of deputies.

—King Alfonso of Spain is seriously ill. He freely exposed himself to contagion in the cholera districts.

—The Boston Postoffice is preparing for the immediate delivery system, which goes into operation October 1st.

—The mother of Rev. Edward Clarke, of Springfield, Ms., celebrated her one-hundredth birthday last Saturday.

—There was one death from cholera on an Italian bark from Marseilles that arrived in New York last Friday.

—A North Carolian woman puts a dish of peanuts on the table every day for desert, and has done so for thirty years.

—Mr. Blaine intends fa finish the book he is engaged upon in about two months, having some 150 pages to complete.

—The more intimate friends of Mr. Gladstone do not hesitate to say that his career as a public orator is closed forever.

—The abstraction of a man's watermelons from his patch is not larceny, according to the decision of a South Carolina justice.

—Judge Waldo Coburn, Justice of the Supreme Court of Massachusetts, died last Saturday at Dedham, after a long illness.

—Let it be continually remembered that the profit from the cultivration of trees is as nothing in comparison with the pleasure.

—Professor Alexander Agassiz has been offered by the President the office of superintendent of the coast and geodetic survey.

—If there is no other reciprocity between Canada and the United States, there is a reciprocity in rascals, which nobody will deny.

—The victor sloop Puritan was sold at auction for $13,000 to Edward Burgess, her designer, for an unknown gentleman in Boston.

—The Manhattan elevated railroad company of New York carried over its lines the last year, just ended, over 100 million passengers both ways.

—The signatory powers to the Berlin treaty have agreed that a conference for the adjustment of the Roumelian difficulty shall be held at Peru.

—Mr. Lingerfy, proprietor of the Philadelphia Record, says that President Cleveland was at one time the editor of the "Shorthorn Herd Book."

—We had the regular visit from the "lime storm" all the same, in spite of the explosion of the idea by the signal service office as an old superstition.

—The Ancients and Honorables are to pay a visit to New Haven next Monday, where they will be received by several military organizations.

—A war of races is predicted as sure to come sooner or later in Canada. The English and the French Canadians do not get along together very well.

—The heavy rains of last week played havoc with the track of the Mexican Central Railroad. The mail train from the United States was delayed two days.

—In the recent "rush" between the Freshmen and Sophomores of Yale College, the former gave the latter all they wanted and a good deal more.

—Judge Clayton of Pennsylvania has decided that a trademark imprinted on butter rolls by the makers could not be used with impunity by other makers.

—Mexicans of all shades of religious and political opinion are waging active warfare against Mormon colonization in the State of Chihuahua. The Catholics lead in this crusade against the Mormons.

—Edith May, the authoress, who has been confined for the past ten years in a Pennsylvania insane asylum, has just been released, her mind fully restored.

—The victorious sloop Puritan arrived in Marblehead early last Sunday morning, and will be hauled up at Beverly, between the bridges, for the winter.

—Repairing and cleaning streets and car tracks, delivering coal, carting away ashes and the like in large cities, will soon be done at night by electric light.

—A company of South Carolina soldiers recently marched through the streets of Columbia, the regimental band playing "Sherman Marching through Georgia."

—The Herdic cabs have gone on at such a reckless rate in our streets as to have finally succeeded in killing a citizen—now we may be able to get at the law on the subject.

—The time for blowing up Flavel Rock and completing the work of removing the obstructions to navigation in Hell Gate, has been deferred for two weeks from last Monday.

—Webb, the English boat-builder, is resolved to try the experiment of putting a centre-board in the Galatea, and renew the ocean sailing contest next season.

—The Forestry Congress raised a committee to memorialize the Legislatures of the New England States to adopt a policy that shall prevent forest fires and encourage tree-planting.

—Mr. Bonner is said to have recently given an acquaintance a ride behind Maud S. for ten cents, which he declares to be the first money he had won from the mare since he owned her.

—The death of John McCullough, the actor at present an inmate of the Bloomingdale Insane Asylum, is a question only of weeks. He is not expected to last till Christmas.

—A noted Boston lawyer, Mr. Edward P. Brown, who was counsel for the Marsh family and against Gov. Butler in the famous Tewksbury case, suddenly disappeared from his office in the Equitable Building and from the city last week, leaving a miscellaneous lot of obligations behind him.

—Rev. Dr. Bartol preached last Sunday on the mind-cure, asserting that the claim for it is founded on the theory that God is not only infinite, but that he is all, and, as God cannot be sick, so sickness is but the name of an unreality, an apprehension of fear, to dismiss which from our thought is to be rid of disease.

—The Centennial Temperance Conference, which was held last week in Philadelphia, is the outgrowth of the Washingtonian movement of 1842, and is 43 years old. Its pledge is to abstain from all intoxicating drinks, and the total number of persons initiated into membership is 2,250,000, while it has raised $8,450,000 for temperance purposes.

—Moses Marrenellah, a Christian Jew, died a few days ago at the county poorhouse in Poughkeepsie, at the age of 106 years. He came to this country from Germany seventy years ago, having travelled all over the world. He walked to California in 1849, or when he was seventy years old, and worked in the gold-mines for several years. He used to talk to Sunday Schools, and was never married.

—Goldsmith Maid, once Queen of the Turf, died in her stall near Trenton, N. J., last week, on Thursday, after an illness of but two hours. Her best record was 2.14. Her owner, Mr. Goldsmith, sold her for $150, and afterwards bought her back for $600. Her temper improved as she grew older, all her viciousness left her, and she gradually forgot how to kick. She was foaled in 1856, and retired from the turf in 1878, her last trot being made in San Francisco.

"O, Lor' Hit 'Im Again!"

In the early days of Methodism in Scotland, a certain congregation, where there was but one rich man, desired to build a new chapel. A church meeting was held. The old rich Scotchman rose and said: "Brethren, we dinna need a new chapel; I'll give £5 for repairs."

Just then a bit of plaster falling from the ceiling hit him on the head.

Looking up and seeing how bad it was, he said: "Brethren, its worse thon I thoucht; I'll make it 50 pun'."

"Oh, Lord!" exclaimed a devoted brother on a back seat, "hit 'im again!"

There are many human tabernacles which are in sore need of radical building over, but we putter and fuss and repair in spots without satisfactory results. It is only when we are personally alarmed at the real danger that we act independently, and do the right thing. Then it is that we most keenly regret because we did not sooner use our judgment, follow the advice born of the experience of others, and jump away from our perils.

Thousands of persons who will read this paragraph are in object misery to-day when they might be in a satisfactory condition. They are weak, lifeless, full of cold aches and pains, and every year they know they are getting worse, even though the best doctors are patching them in spots. The origin of these aches and pains is the kidneys and liver, and if they would build these all over anew with Warner's safe cure as millions have done, and cease investing their money in miscrably unsuccessful patchwork, they would be well and happy and would bless the day when the Lord "hit 'em" and indicated the common-sense course for them to pursue.—*London Press.*

—As a result of tree culture in Dakota, birds are becoming quite numerous and in some counties quail have made their appearance.

—The value of lime as a fertilizer consists in its making plant food in the soil available. It decomposes the constituents of the soil.

—In Europe, railroad ties made of cheap mild steel are rapidly taking the place of wooden ties.

—Large supplies of potatoes have come into the Boston market, and there is no prospect of higher prices for some time to come.

—Weather signals are to be distributed throughout Cape Cod for the service and guidance of cranberry growers.

—Ex- Gov. Moses, of South Carolina, will again be sentenced on Thursday of the present week, having pleaded guilty to an indictment charging him with obtaining money by false pretences from Ex-Mayor Cobb, of this city, and others, in February, 1884.

—It is suggested to those who visit in any official capacity scenes of murder, riot, or wreck that they should apply the photographer's camera before anything is disturbed, as the evidence thus gained, being incontrovertible, might possess incalculable value.

—Compulsory vaccination is at once to be inaugurated all over the island on which Montreal is situated. One street in the city that used to be called the children's street, from the number of children playing on it, is now silent, the little ones having been swept away.

—The monument to James L. Ridgely, late Secretary of the Sovereign Grand Lodge of Odd Fellows in the United States, was unveiled in Harlem Park, Baltimore, on Tuesday of last week.

☞ KNOW THYSELF, by reading the "SCIENCE OF LIFE," the best medical work ever published, for young and middle-aged men. aprll—y

—Tramps are freely expressing their disgust at being required to saw and split a cord of wood at Wayfarers Lodge, in Hawkins street, before receiving the hospitalities of the city.

☞ Hall's Hair Renewer turns gray hair dark, removes dandruff, cures scalp humors; an elegant toilet article.

—A heavy northwest snowstorm fell on Mt. Washington on Wednesday of last week, and continued all day. The temperature hereabouts fell as much as forty degrees during the same day.

CATARRH

Is a very prevalent and exceedingly disagreeable disease, liable, if neglected, to develop into serious consumption. Being a constitutional disease, it requires a constitutional remedy like Hood's Sarsaparilla, which, acting through the blood, reaches every part of the system, effecting a radical and permanent cure of catarrh in even its most severe forms. Made only by C. I. Hood & Co., Lowell, Mass.

—Less than four out of every one hundred Americans lived in cities in 1790. Now there are twenty-two out of every hundred. But seventeen States have a larger population than New York city.

PERRY'S WORM TEA sent by mail for 25 cents. John A. Perry, Boston.

MARRIAGES.

In Boston, Sept. 24th, by Rev. C. D. Bradlee, Timothy E. Hancock to Annie C. Poor.

In Boston, Sept. 24th, by Rev. Sylvester F. Jones, Mr. Nathan Sears to Miss Julia F. Long, both of East Dennis, Mass.

In Hyde Park, Sept. 20th, by Rev. Mr. Davis, Mr. David A. Donley, formerly of Bedford, to Miss Nida Robbins of Hyde Park.

In Brookline, Sept. 24th, by Rev. Reuen Thomas, Isaac C. Copeland of Brookline to Adelia J. Giles of Boston.

In Malden, Sept. 27th, by Rev. E. S. Potter, Christopher Oberlander of Chelsea to Clara A. Collins of Malden.

In Winchester, Sept. 24th, by Rev. C. R. Seymour, Edward L. Rawson of New Haven, Ct., to Annie L. Prince of Hyannis, Mass.

In Dennisport, Sept. 13th, by Rev. J. W. Holman, Mr. Clarence F. Eldredge of Boston to Miss Lucie W. Nickerson of Dennisport.

In Charlestown, Sept. 23d, by the Rev. Charles F. Lee, David C. Merrift to Ella J. Garland, both of Charlestown.

DEATHS.

In Boston, Sept. 24th, Harriet, widow of Stanley Austin, Esq., aged 79 years.

In Chatham, Sept. 20th, Mary E., wife of Frederick M. Allen, 46 years.

In Dorchester, Sept. 24th, Sally Briggs, 90 years 4 months.

In Dedham, Sept. 26th, Waldo Colburn, 60 years.

In Newburyport, Sept. 23d, Daniel H. Cutter, 73 years.

In Norwood, Sept. 25th, C. Robert Dexter, 17 years 6 months 23 days.

In Providence, Sept. 23th, John Garside, 58 years.

In West Roxbury, Sept. 24th, Augusta, wife of Stephen O. Jacobs, 58 years 6 months.

In Quincy, Sept. 24th, Mrs. Mary H. Webber, 73 years 3 months 10 days.

In Lexington,

A Bank

may fail, and yet, by wise management, regain its credit. So, also, if wise counsels are followed, the strength and vigor of a failing constitution may be restored. Many cases like the following could be cited: Frank Laprise, Salem st., Lowell, Mass., says, that on account of impure blood, his whole constitution was shaken. After taking Ayer's Sarsaparilla freely for a month, his health was restored, and his original vigor regained.

Failure

to get the best remedy at the outset, involves, in case of sickness, not only a waste of money, but useless suffering. John H. Ward, 9 Tilden st., Lowell, Mass., says: "Ayer's Sarsaparilla cured me of boils, sores, and itches, which no other remedy could remove. I tried several other so-called 'sarsaparillas,' but received no benefit from them." William H. Mulvin, 122 Northampton st., Boston, Mass., writes that

Speculation

as to what will cure Dyspepsia, vanishes before the light of such evidence as that furnished by O. T. Adams, Spencer, O., who says: "For years I suffered acutely from Dyspepsia, scarcely taking a meal, until within the last few months, without enduring the most distressing pains of indigestion. Ayer's Sarsaparilla saved my life. My appetite and digestion are good, and I feel like a new man." "Two bottles of

The Cause

of all his sufferings, "enough to kill a dozen men," was the failure of his kidneys and liver to properly perform their functions. He was permanently cured by using Ayer's Sarsaparilla. Mrs. George Edwards, Boston Highlands, Mass., was cured of liver and bilious troubles by the use of Ayer's Sarsaparilla. Warren Leland, the famous hotel proprietor of New York city, writes: "I have personally used Ayer's Sar-

Ayer's Sarsaparilla

saparilla cured me of Dyspepsia," writes Evan Jones, Nelson, N. Y. Mrs. A. M. Beach, Ghent, Vt., writes: "A humor of the blood debilitated me, and caused very troublesome scrofulous bunches on my neck. Less than one bottle of Ayer's Sarsaparilla has restored my appetite and strength. It has also greatly lessened the swellings. I am confident they will be entirely removed by continued use of the Sarsaparilla." Irving Edwards, Ithaca, N. Y., was afflicted, from boyhood, with scrofulous sore throat. Four bottles of Ayer's Sarsaparilla cured him, and he has

Never

since been troubled with the disease.

Fails

for Rheumatism, with entire success. There is no medicine in the world equal to it for the cure of liver diseases, gout, the effects of high living, and all the various forms of blood diseases." Benj. Coachman, Bronson, Fla., writes: "I suffered for months from debility, and pains in the lower part of my chest. Three bottles of Ayer's Sarsaparilla have made a new man of me. I am entirely cured." Doctor T. Porter, Cerro Gordo, Tenn., writes: "I have prescribed Ayer's Sarsaparilla in my practice for a number of years, and find its action admirable." It never

Fails

to vitalize the blood and expel impurities.

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass., U. S. A.

For sale by all Druggists. Price $1; six bottles for $5.

Stover Windmill.

HIGHEST AWARD AT THE CENTENNIAL.

HIGHEST AWARD for MASS. CHAR'LE MEC'S ASSOC'N, 1884.

And Numerous other Medals & Diplomas.

THE SIMPLEST MILL MADE

This OLD and RELIABLE Windmill has now been in use for over 13 Years, and persons intending to employ this economical method of water supply either for *Gardens, Florists, Institutions*, Town and Village Water Service or other purposes, will find it for their advantage to call upon us or send for Catalogue, which will be mailed free. We have other mill made, a *special feature* being the *anti-friction ball bearings* upon which the turn table rests and turns. This will commend itself to every one as a very great importance, as *no oiling* is required here, and friction is reduced to the lowest point, thus allowing the wheel to move *quickly* into the wind and commence work. The Workmanship and FINISH is of a superior order, and satisfaction is GUARANTEED.

PUMPS, TANKS, PIPE and all other fittings furnished and ESTIMATES given.

Written testimonials from our customers may be seen at our office.

HENRY W. PEABODY & CO.,

New England Agents, Mason Building, Liberty Sq., Boston. oct3 9t

MATCHLESS SWIVEL PLOW.

CHAMPION OF THE WORLD.

And the Favorite of all Progressive Farmers

ALSO TWO CELEBRATED

Wiard Sulky Plow

And Wiard Chilled Hand Plow, which have no equals of their kind anywhere;

AND THE NEW

Daniels' Plow Sulky,

To which any plow can be attached, and which is superior in many respects to any other Plow Sulky in use.

FOR SALE BY

T. B. EVERETT & CO.,

No. 43 South Market St., Boston

Send for Descriptive Circulars. sep5 3teow

THE DANA CENTRIFUGAL-GOVERNOR WINDMILL

Is the best working and most powerful Windmill known in the world, because it is the only one which controls the speed of the wheel with the most perfect method of regulation, and is the only mill which WORKS WITH EASE IN A HIGH WIND.

THE DANA WINDMILL CO., FAIRHAVEN, MASS., U. S. A.

40 HIDDEN NAME, Perfumed and Embossed Cards, Pocket Calendar and new Agents' 40 Cts., 14 pkt and Agent's Outfit, $1. CLINTON & CO., Nor. Haven Ct. aug22 27teow

IRON TURBINE WIND ENGINE.

Light, Strong, Durable.

Is no heavier and will run in a lighter breeze than the common Wooden Wheel. Will not shrink, swell, warp or rattle. Also the

BUCKEYE FORCE PUMP, Double acting, Non-freezing.

T. B. EVERETT & CO. 43 So. Market St., Boston. Send for Circulars.

QUINCY MUTUAL FIRE INSURANCE COMPANY

Cash Fund, January 1, 1885, $440,183.00. Surplus over to insurance, $243,309.74. Gain in Cash Surplus the past year, $15,133.79. Gain in Cash Surplus the past year, $18,696.36. Amount at risk, $25,309,944. Total Liabilities, $186,873.26. Losses paid in full. Dividends paid in every expiring policy for over 20 per cent. on 5 years, 30 per cent. on 7 years, and 30 per cent. on all others. Note but the cash premium for property written.

ISRAEL W. MONROE, *Pres. and Treas.*

CHAS. A. HOWLAND, *Secretary.*

BOSTON OFFICE, NO. 27 STATE STREET.

Local Agencies in every town. dec7 y

FOR SILOS. THE BEST CEMENT TO USE IS THE

Newark and Rosendale.

For sale in any quantity, at Boston, New York, or at Rondout, by

WALDO BROS., 88 Water Street, Boston.

DEALERS IN—

LIME, PLASTER, DRAIN PIPE, BRICK AND LAND TILE. 13t

RUPTURE.

The Celluloid Truss

For Comfort, Cleanliness and Durability Unexcelled.

Warranted Not to Rust. Warranted Not to Break. Worn While Bathing

Elastic trusses and belts, so called, soon become filthy from absorbing the perspiration, and also lose their power. THE CELLULOID once fitted always remains so; is always clean, as it is proof against all secretions of the body. Do not be alarmed by quack talk about the harm done by trusses, but remember that THE CELLULOID when properly adjusted is the only truss or support of any kind that can absolutely be depended on. This is especially the case in ruptures, the wearer of ak elastic or leather truss soon becomes the victim of disgust to himself and friends. THE CELLULOID will be properly adjusted and the kind and durability guaranteed by G. F. DINSMORE & CO.

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THE GRAND DOMINION AND PROVINCIAL FAIR OF CANADA.

BY SOLON SIMCOE.

It has been my privilege to attend the fortieth exhibition of this ancient and honorable society just held at the city of London, Ontario, commencing the 7th of September, and holding open during the week. This Fair was held under the auspices of the Agricultural and Arts Association of Ontario, and as an addition to prizes offered by this society, the Dominion government made the munificent grant of $10,000, thus swelling their prizes to more than $20,000. And, as was expected, the result was a display of not only the best animals, but the best products of the soil as well as that of manufactured articles of all denominations, from a tack nail to a steam engine. And I wish to say right here, that to those who think the Canadians a slow, plodding, careless and indifferent set, or a grand lot, oh, uld attend just one of Canada's great fairs, of which she holds several each year, and there learn many things that would tend to disabuse their minds. However, perhaps the priest-ridden French Catholics occupying much of this beautiful Province who are of no real benefit to anybody but to the great Catholic society itself, which means the priests, etc., etc. But I am digressing. This show was immense, and embraced many fine and useful branches, from the heavy dragging horses weighing 2000 pounds through the different breeds and classes to the diminutive pony of 300 pounds. Of neat cattle the Short Horns, Holsteins, Ayrshires, Hereford, Polled Angus, Jersey, Galway and Devon breeds were quite fully represented and in the order named, with nearly or quite as many of the beautiful red-and-roan (Shorthorns) as all other breeds combined. It will be a long while before this breed will be supplanted or by any other as a general purpose animal, filling the requirements of the Canadian farmer and supplying his English cousins with choice beef. Careful experiments at the Experimental Farm of this Province places the Shorthorn at the head of the class of beef cattle, the Holsteins at the head of the milking class, the Jersey at the head of the butter class, and the Ayrshire at the head of the cheese class, and this is just what I had it figured out many years since when I was breeding cattle on a small scale in good old New England.

All breeds of sheep common to American soil and climate were represented, and well represented. And in addition there was a pen of Dorsets horned sheep recently imported from England. But of the different breeds of sheep the Shropshire Down is the coming sheep for Canada, and I prophesy it is soon destined to become the leading breed of America. The Merino must go. Of swine there was seemingly no end to them; they were surely out in great numbers and all breeds of the country were well represented except the Durock, or Jersey Reds. I doubt if there is one of this breed owned on Canadian soil to-day, and why should there be, when we have (in my opinion) so many better and more improved breeds? Of swine, the Berkshire stands pre eminently at the head of all breeds in Canada, both for home consumption and for shipping abroad.

Poultry was well represented, and nearly all classes were filled, from an African bantam to a Toulouse goose. It is difficult for the Canadian public to fully decide on the best variety of fowl for a general purpose fowl. The English farmer (in Canada) being strongly prejudiced in favor of the Dorking, while many of the best farmers and poultry men are well pleased with the Plymouth Rock. The Langshan are also gaining some favor just now. But the fowl that is causing the greatest boom in Canada to-day is the new breed called the "Dimon Creeper." They are as yet very scarce, but in great demand, and any smart man could sell 1000 young chicks in Ontario this fall for at least $2000, and perhaps much more.

The dairy products of the Dominion was unusually well represented, especially the cheese department. And as to honey, the show was such as to convince the most skeptical that this is a flourishing country for bees. The quantity was not only large, but the quality very fine, as I know by experience. The vegetable department was most largely represented, and especially the root crops. And of all the beets I ever saw I was compelled to say these beets, beat all.

The horticultural department was also well filled in all its classes, and the display was such as to convince the most skeptical of the ability of this country to grow handsome and fine fruit, from a Delaware grape to a "Beauty of Kent" apple. The manufactures of the Dominion were well represented, both the woolen, the cotton and the leather. Also the manufactures of farm machinery and carriages were so well represented that a stranger would say that Canada was nearly as much of a manufacturing country as that of Uncle Sam's just across the river.

WINDSOR, ONT., Sept. 12, 1885.

—Secretary Manning has expressed a determination to put a stop to blackmail by custom officers, in connection with the examination of the baggage of arriving passengers, who are made to pay money to inspectors.

—The eclipse of the moon on the morning of Thursday of last week was an interesting and impressive sight. It is not any too often that the shadow of the earth can be seen crossing the face of the moon 240,000 miles away.

—The Springfield Republican says with truth and point that there is nothing more ridiculous in metropolitan journalism than its interviews with the used-up actresses that come over from Europe after American shekels.

—The Romelian rebellion is making no end of talk in Europe, and if Turkey sets out in earnest to suppress it there may ensue complications of the gravest character. It is the greatest small political event in Europe for some time.

—One of the Alaska glaciers is said to be four hundred miles long, underneath which flows a rapid torrent, estimated to be one hundred feet wide and four feet in average depth, that runs summer and winter without interruption.

—The fishing season is advancing in Canadian waters with no complaints, under the stipulated arrangements between Canada and the United States, by which the fisheries' clause of the Washington treaty is continued in force during this year.

American Forestry CONGRESS.

At Horticultural Hall, Boston, Tuesday, Wednesday and Thursday, Sept. 22, 23 and 24, 1885.

[*Report Continued from last week.*]

WEDNESDAY, SECOND DAY.

Remarks of Hon. Marshall P. Wilder.

The American forestry congress met again Wednesday morning in Horticultural Hall for the second day's meeting of the annual session. Hon. Warren Higley, the president, occupied the chair, and Hon. Marshall P. Wilder had a seat on the platform, and was introduced to the meeting by the chairman in eulogistic terms. Mr. Wilder was received with loud applause, which was still louder when it was announced that the gentleman celebrated his 87th birthday Tuesday. Mr. Wilder said he would never be so old as not to take interest in the object of this organization. He welcomed them to the Massachusetts Horticultural Hall in Boston. This society, he said, was the first of its kind incorporated in the country, and was the parent of many others. It had been the means of introducing ornamental trees, which originally came from the forest, and it was of the highest importance to protect the forests for the many useful purposes the timber served mankind. He said: "Go on, press on in your noble work, and future millions shall remember you with gratitude long after you have passed away." [Applause.] He said he had been a lover of nature from his youth, and hence his interest, and he loved everything in nature, the balmy spring, the glorious summer, the mellow autumn, and he loved dearly to be remembered by those who had for their object, as his hearers had, the health and happiness of the human race.

Mr. J. S. Fay of Woods Holl had invited the members of the congress to visit his plantation, and the invitation was accepted. Hon. Marshall P. Wilder and Mr. Elizur Wright complimented Mr. Fay for his energy, and assured the members of the pleasure they would experience. Mr. Wright also offered barges for such gentlemen as may desire to visit the Middlesex Fells.

Forestry Legislation.

Hon. N. H. Egleston read a paper on "Forestry Legislation in the United States," tracing its progress from the earliest settlements, when the people coming from a place where the timber was cared for had a conservative interest in caring for shipping. But since then the feelings of the people had so changed that the forest trees had depreciated, and, although laws of a protective nature had been passed, the forests are ruthlessly robbed, and it was thought that a great portion of the Pacific railroad had been built with timber stolen from government lands. The laws had produced but little result, and it did not seem that the matter of health in connection with the forest had any place in the thoughts of the community. The paper showed how in the several States the punishment for setting fire to or robbing forests was in some cases by fine and in others by whipping and imprisonment. but these laws, the speaker said, have not been adequately enforced. As to the planting of young trees, but little advancement had been given, and, therefore, not much had been done.

Hon. H. J. Jolly, who was loudly applauded on being called on, spoke on the forest economy of Canada. He said the seed of the congress had been fruitful in Canada. What had been done by the Legislature had been done at the suggestion of the forestry congress after the session held in Montreal in 1882. In Canada nearly all the lumber land is owned by the crown, and limits are let out, as it were, on good behavior. In 1868 it was decided to make the lumbermen interested in the preservation of the forests, and so the timber forests were better cared for than in the United States. In 1883 the province of Quebec carried out the suggestion of this congress by causing all lands unfit for cultivation to be set apart for the cultivation of timber. The government would not allow any land which is unfit for cultivation to be allotted to the settler. Indeed, it was a cruelty to the settler to allow him to settle on such land. In the latter case, only power would be needed to be given to owners. He thought the time would come when the conservative lumberman will require his more careless neighbor to clear away his debris.

Mr. J. N. Lander, superintendent of the motive power department of the Old Colony railroad, then spoke on the subject of

Smoke Consuming Devices

for locomotives. In a general way he told what had been done in the past and was being done. He thought the passenger on a car on a train of Ontario, and as an addition to prizes offered by this society, the Dominion government made the munificent grant of $10,000, thus swelling their prizes to more than $20,000. And, as was expected, the result was a display of not only the best animals, but the best products of the soil as well as that of manufactured articles of all denominations, from a tack nail to a steam engine. And I wish to say right here, that to those who think the Canadians a slow, plodding, careless and indifferent set, or a grand lot, oh, uld attend just one of Canada's great fairs, of which she holds several each year, and there learn many things that would tend to disabuse their minds. However, perhaps the priest-ridden French Catholics occupying much of this beautiful Province who are of no real benefit to anybody but to the great Catholic society itself, which means the priests, etc., etc. But I am digressing. This show was immense, and embraced many fine and useful branches, from the heavy dragging horses weighing 2000 pounds through the different breeds and classes to the diminutive pony of 300 pounds. Of neat cattle the Short Horns, Holsteins, Ayrshires, Hereford, Polled Angus, Jersey, Galway and Devon breeds were quite fully represented and in the order named, with nearly or quite as many of the beautiful red-and-roan (Shorthorns) as all other breeds combined. It will be a long while before this breed will be supplanted or by any other as a general purpose animal, filling the requirements of the Canadian farmer and supplying his English cousins with choice beef. Careful experiments at the Experimental Farm of this Province places the Shorthorn at the head of the class of beef cattle, the Holsteins at the head of the milking class, the Jersey at the head of the butter class, and the Ayrshire at the head of the cheese class, and this is just what I had it figured out many years since when I was breeding cattle on a small scale in good old New England.

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WINDSOR, ONT., Sept. 12, 1885.

THE KEMP Manure Spreader.

No farmer can afford to apply manure for seeding down or top-dressing this Fall, without the use of the KEMP Spreader.

IT SAVES TIME, IT SAVES LABOR, IT SAVES MONEY.

It will astonish all in the increase of crop above the ordinary way of spreading manure by hand Send for descriptive circular, and by all means consult your neighbors who use them.

The Richardson Manufacturing Co. WORCESTER, MASS.

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did not think there would be any fear of loss if the evergreens were transported from Waukegan to Boston in August, if only properly packed. The trees transplanted were from two to five feet high. The experience of the speaker was thought to be remarkable.

Mr. Strong then spoke on the question of seacoast planting, and referred to the story of the Pilgrim fathers who in their early days wrote of the "goodly groves and woods" on Massachusetts coast down to the sea, even Cape Cod being well wooded." Bu now, where all was formerly wood, the ground was barren; still, if nature was left to herself, the speaker had no doubt that nature would rejuvenate herself. Then how beautiful would become the many islands of the harbor! [Applause.]

Mr. Edmund Hersey of Hingham read a paper on the red cedar and osier willow, describing his experience in their growth during the last forty-five years. Among the most indigenous, he said there were few better in this part of the country, and none would make a better hedge, and it would grow in almost any place. He considered that it could be grown at a profit even for fence posts, though it was often used for cabinet work. Beside this, grass grows more thickly under its branches. Referring to the cultivation of the osier willow, he said it would grow from cuttings as well as from roots, and three tons may be got from an acre, worth $125 per ton. The plant thrives best on high land, and in the second year it will grow from six to nine feet.

The Recuperation of Barren Lands

was touched on by Mr. B. G. Northrop of Clinton, N. Y., who pointed out that the shores of the sea have been reclaimed in England, France and Holland. The recuperation of barrens in this country was almost new, although it is common in European countries. An interesting experiment has been made on the land of Mr. Russell of Narragansett bay, who has more than 700,000 acres of trees planted, of which 60,000 acres were before only sandy plains. The owner has become satisfied with the pecuniary result, but is still better satisfied with the pleasure in the cultivation of trees. In Barnstable, Mass., a similar experience had been proved to be profitable. Just so with Mr. Fay at Woods Holl, who has been so successful with the Scotch larch. In Massachusetts, the speaker said, there are 200,000 acres of waste land from which in ten years $1,000,000 could be realized. On the Northern Pacific railway, it had been said that trees could not be made to grow, but now they had trees growing there which form the best kind of snow break.

Arbor Day

was the title of a paper read by Dr. Egleston. He made a very earnest appeal to the congress to push on the institution of "arbor day." The arbor days were begun in Nebraska, but it was not there alone that they were required, and even Michigan, with her vast forests, has designated a day in April to plant trees on the roadside and other places. The same was the case in Pennsylvania and in other places in the United States and Canada, and the speaker hoped to see it spread through all the States.

Mr. J. B. Peaslee of Cincinnati, O., had sent a communication which the president read, stating that while he could not be present on the day, he was left for Ohio to introduce the celebration among the school children, and the people there felt pleased that other States and Canada had followed the beautiful custom, which had become interesting to all residing where the practice is observed, and tending to educate all who live in those districts. The writer hoped to see the public schools of the country take up the question.

The following gentlemen were appointed a committee on arbor day: Dr. Northrop, Prof. Egleston and Prof. J. B. Peaslee.

The congress then adjourned until 7.30 P. M.

The Evening Session.

On the opening of the evening session, Dr. George B. Loring reported on behalf of the committee on the Miller bill now before Congress, and moved the following:

Resolved, That the forestry congress cordially thanks Senator Warner for the interest taken by him to secure proper congressional legislation for the protection of the forests of this country. We heartily approve what we understand to be the object of his bill; yet the time which we have in which to consider it is too limited to allow us to express an opinion upon the bill in detail, and we therefore refer it to the committee appointed on the subject, for the purpose of making such suggestions as they shall think proper, and we instruct them to forward it with their suggestions to the honorable senator.

Rev. A. D. Mayo

read a new and pleasant story of "The Children in the Woods," picturing the childhood of the boys and girls in the country towns of the State of Massachusetts, and told how they found pleasure among the leaves, and how, as they grew up, courted each other among the lanes which were lined with the great pine trees. Then, as they grew up, the forest was the scene of their hunting delight. But for 250 years the hands of man following the American god—enterprise—the forests had been denuded of their beauty, and with the aid of the axe and the fire had been swept away in many places. For this reason it was well that the American Forestry Congress had been formed to resist this destruction. One of the greatest powers which would aid them would, however, be the education of the young. If a conviction against it had been inculcated in the young, Boston would not to-day be swimming in bad whiskey. The children should be educated in the family and the church, for even the editors could not do more than can the minister. But the most available agency to teach the children to love the woods was the common school, where now they are taught by natural objects. Unfortunately, this kind of education was too much confined to cities and large towns, although the good work is fast going on.

THURSDAY, THIRD DAY.

The final session of the fourth annual meeting of the American Forestry Congress was held in Horticultural Hall, Thursday morning; Hon. Warren Higley, of New York, its President, was in the chair. The vice presidents were called thus: President, Warren Higley of New York; First Vice President, Hon. H. J. Jolly of Quebec; Second Vice President, Hon. John Sterling Morton of Nebraska; Treasurer, J. S. Hicks of Roslyn, N. Y.; Corresponding Secretary, B. E. Fernow of New York; Recording Secretary, N. H. Egleston of Washington, D. C. President Higley appointed this Executive committee: Prof. B. G. Northrup of Connecticut, Mr. Wm. Little of Montreal, Canada, Hon. Joshua B. Grinnell of Iowa, Hon. J. G. Knapp of Florida, and Hon. Reuben H. Warder of Ohio.

Mr. W. C. Strong of Newton read a letter from Hon. E. P. Martin, President of the New York Board of Trade and Transportation and of the Brooklyn Constitution Club, in which were enclosed the law for the protection and preservation of the woods of the Adirondacks. Mr. Strong announced that Hon. Joseph Story Fay has contributed $25 for the uses of the congress.

Hon. Elizur Wright spoke further in relation to the Middlesex Fells. Mr. Egleston offered a vote of thanks for the work done by the press in reporting the proceedings of the congress; this was seconded by Prof. Northrop and was adopted by a unanimous vote.

Major S. B. Phinney of Barnstable made some remarks upon the condition of Barnstable county, stating that it has been proved by actual experiment that pitch pine will grow there, and thousands of acres have been planted with it. Its growth is so rapid that pines from seed planted by him forty years ago are as thick through as his body. He asserted that instead of withdrawing bounties for the planting of trees, they should be increased.

Mr. John D. Lyman of Exeter, N. H., advocated the thinning of young trees in plantations, saying that $1 expended in this way will bring about better results than $10 expended in planting.

Resolved, That the committee on legislation be instructed to gather evidence on the use of spark arresters, and send their report thereon to the railroad commissioners, where such are appointed, or to other proper authorities, enjoining the same to enforce the use of such appliances on all railroads running through wooded regions.

The several resolutions were adopted. Committees were then appointed as follows: Legislative—Ex-Gov. J. Sterling Morton of Nebraska, Hon. N. H. Eggleston of Washington, D. C., Mr. J. S. Fay of Connecticut, Hon. Joseph Story of New York, Hon. J. B. Grinnell of Iowa. On nominations—Mr. F. W. Brewer of Massachusetts, Mr. W. Little of Quebec, Mr. J. S. Gold of Connecticut, Mr. W. C. Strong of Massachusetts, Mr. S. W. Foreman of California.

Ontario Commissioner's Report.

A communication of considerable importance was received from Hon. R. W. Phipps, the forest commissioner of Ontario, giving a report of much practical interest, after which the meeting adjourned until two o'clock.

The Afternoon Session.

On the reassembling of the congress, Mr. John E. Hobbs of North Berwick, Me., read a paper on the lumbering interests and their dependence on systematic forestry. He showed by figures that there is a great destruction of timber for the purposes of lumber which cannot be kept up without in a great measure affecting the prosperity of the country, and in the near future it would be necessary to depend on Canada and the States south of Ohio, as the people on this side would be got rid of. He said the price of lumber has decreased in recent years owing to overproduction even more than has the value of gold. The rotation of crops, he said, is necessary to the propagation of timber, and reforestation and of

Mr. B. E. Furnow of New York spoke on lumbermen's waste as a fertilizer. He said when it was endeavored to interest the farmer in forestry, it was told how the climate is affected by the destruction of the forests, and how beneficial are the products of the forest, which may be obtained in winter, and so provide him with fuel and fencing. But it would not help him better than by providing him with manure, as in Europe, where the practice of using leaves of trees as fertilizers is common, and has been found to be of real value to the land tilled. After sawdust had been used as bedding, it had been found to be better than sawdust bedding of trees, as it retains more of the chemicals. It was now proposed to prepare a bedding material from the lumberman's litter, so apt to occasion forest fires, and transport it to the worn out farms of the eastern States, on which it would prove a gift to the agriculturist. In Canada the experiment had turned out very satisfactorily.

Mr. W. C. Strong of Boston read a paper on

August Planting of Evergreens.

The time for transplanting these in the North, he said, is limited to about a month in the fall and one in the spring. If spruce be planted in March or April the result will often be fatal, as will be the case if they be planted in the fall. May is a good month to transplant, but August and early September are still better. Cuttings taken in August will root more quickly than in any other season, and so it may be better to plant seed in that month. From experience by transplanting some forty thousand trees in August, 1870, a particularly droughty season, he found that almost every tree lived, and he felt assured that many young trees were killed by overwatering. In answer to inquiries, the gentleman said he said, overtopped in importance any industry in the land. But how was it possible to expect law-makers to realize its importance when the people themselves did not appreciate it. It was strange to find the gray-haired men almost alone in taking an interest in this subject, while the young men held aloof. It is time that the leaven is beginning to work a little—something has been done to protect the Yellowstone and Niagara falls—let it go on and help it along, and the lessons of the nations that have gone before us will bear fruit in due season. He ridiculed the idea that trees were hard to cultivate. Give them sufficient food to feed upon, and they will grow if intelligently removed and intelligently set out and cared for, even easier than any other living thing, not excepting man. Regarding forestry legislation, he urged that the people should look nearer home than the general government, as not one-third of the States had one line on the statute books relating to forestry or the protection of trees. From the home is the strongest influence coming, and we want to inculcate in the minds of the children a love for trees, a love for the beautiful in nature as well as in art.

B. G. Northrop of Clinton, N. Y., in a short address reiterated the opinion of the previous speaker in relation to the facility with which trees can be grown when properly planted with due consideration to adaptability and capacity of soil. He detailed the success of "Arbor day" in Indiana and the success of his efforts in inducing the governors of Minnesota and Vermont to issue proclamations setting aside one day as "Arbor day" for the setting out of trees by the wayside, on commons, around public buildings and in waste places. The present year in fifteen States of the Union "Arbor day" was observed and thousands of trees were planted. During the course of his remarks he read a resolution, adopted later, approving the planting of memorial trees on Decoration Day.

Arbor and Memorial Day.

Col. C. M. Miriam of New York offered the following resolutions:

Whereas, the planting of memorial trees is recognized as one of the important means in the promotion of forestry; and

Whereas, Colonel H. Clay Hall, department commander of the G. A. R. of the State of New York, officially requested all the posts in his department to connect with the exercises of Decoration Day the planting of memorial trees, and that the day henceforth be designated as arbor and memorial day; and

Whereas; in response to this action of the commander, large numbers of trees were successfully planted and dedicated on that day by the different posts, therefore be it

Resolved, that the American forestry congress heartily approves what has been done in this respect, and recommends its general adoption by all the army posts in the Union.

Mr. Miriam, speaking to the resolution, showed that such action would tend to increase the number of trees from end to end of the country. He spoke of having witnessed the ceremony of such planting, as loving memorials of dead brethren, which was most touching. In places where the posts could not plant trees without endangering monuments, he would have the cities purchase a piece of ground to be called the soldiers' park. In these days when the G. A. R. had placed flowers on the graves, they were taken away by the young, but they could not take away the trees. The resolution was unanimously adopted.

Mr. John E. Hobbs of Maine presented a resolution providing for the appointment of a committee of two from each of the New England States, whose duty it shall be to co-operate toward securing uniform laws in regard to forest and the preservation of forests, as it bears upon water supply. This having been adopted, the President appointed under it Gen. Chas. Hamlin and Mr. John E. Hobbs of Maine; W. S. Ladd and Joseph B. Walker of New Hampshire; T. S. Gold and B. G. Northrop of Connecticut; William C. Strong and Francis H. Appleton of Massachusetts; Henry G. Russell and Mr. Smith of the Board of Agriculture of Rhode Island; Frederick Billings and Hiram Cutting of Vermont. On motion of Hon. Elizur Wright this committee was instructed to take into consideration for Massachusetts the preservation of the Middlesex Falls.

President Higley made an appeal for $400 with which to publish the proceedings of the meeting, pledging himself to be one of twenty, each of whom shall give $20.

Just after 12 M. the customary votes of thanks to entertainers, especially to the Massachusetts Horticultural Society, having been passed, an adjournment was made, subject to the call of the President.

During the forenoon members of the congress visited the Arnold Arboretum in the West Roxbury District, and the Middlesex Fells. In the afternoon, as guests of the city of Boston, they went down the harbor.

THE CATTLE QUARANTINE.

Its Removal to Littleton to be Commenced at Once.

[Boston Traveller, Sept. 25.]

After months of uncertainty and delay, the authorities at Washington have at last decided to remove to the grounds of Col. J. A. Harwood, at Littleton, Mass., the cattle quarantine station now existing at Waltham. The contract for the removal, which was signed to-day, provides for the leasing to the government of forty acres of land at Littleton for the term of one year, with the privilege of renewing the same for fifteen years, Col. Harwood, the owner of the land, to receive therefor a normal sum, together with the manure of the quarantine. The situation of the new station is excellent. The grounds are high, well shaded with trees, and are located on the banks of a large freshwater pond, but a few moments walk from the depot, postoffice and telephone and telegraph offices. The Fitchburg Railroad Company has agreed to furnish splendid facilities for the transportion to the grounds of both cattle and grain, and by the arrangements proposed the cattle can be installed at the new station within two hours after being inspected on the steamer at the wharf in Boston. The grounds are situated on the main line of the Hoosac Tunnel route, which is favorable for the transportation of hay and grain directly from the West. Commissioner Colman intends to make the station permanent at this place, and, moreover, it is his plan to present to the importers of this vicinity a quarantine which is to be a model in every respect, and which for cleanliness and general arrangement is to be the best in New England, and second to none in the whole United States. It has been proven in a practical way that the air and water of Littleton, which, by the way, is but thirty miles from Boston, is beneficial to cattle. Messrs. T. B. Wales, H. Langworthy, F. S. Perry, and other importers, have already quarantined cattle at this place, and in every instance they have thrived wonderfully well. The work of removing the sheds now at Waltham will be commenced at once. The new station will accommodate the same number of cattle as did the old one. An importation is expected in a few days, and this will be the first stock to be quarantined in the new quarters. The action of the authorities in deciding to remove the station was taken after a thorough investigation of the subject, and Commissioner Colman, after taking everything into consideration, has concluded that Littleton is the best place in the Commonwealth for the station, and it is to be trusted that the future will prove that he is right in this opinion. Importers are generally glad that the question is settled, and it is believed that, as a whole, they are not sorry the selection of Littleton as the site of the new quarantine station.

— The cotton crop of Texas last year was about 975,000 bales, and it is estimated to reach a million and a half bales this year.

— Instruction intends to organize a service in France by means of which it will be possible to prevent rabies in animals. He claims that his system of inoculation is a sure preventative.

— The crop of grapes is very large this season, thus placing this grateful fruit within the reach of all.

— The Hambletonians are the favorite strains in trotting horses.

— It is probable cheese will advance in price in the near future.

— We import into the United States over six million dollars worth of eggs yearly

— It has been said there are thousands of farmers who can not tell the names of half a dozen trees in the nearest wood lots.

The Perfect SIDE-HILL PLOW.

Found at last in the improved North American Plow. We will send this to any one in want of a Side Hill Plow, and if not the best Plow to be obtained can be returned free of expense. *Over 800 sold from Boston in 1884.*

THE COMMON SENSE POTATO DIGGER.

It is simple, of light draft, and not liable to get out of order. Sold at a price so that it will pay any one that raises an acre of potatoes to buy one.

Farming Tools, Seeds and Wooden Ware.

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FARM TO RENT AT WALTHAM, MASS.

THE Farm owned by Mr. Frederick H. Hindge, on Forest Street, in the northerly part of Waltham, containing about 100 acres, 60 acres of which is now laid down to grass and is in high condition. The farm has large orchards, and is well stocked with Apple, Pear and Peach Trees. The pastures alone have rented the past season for $250.

Large, new and convenient house, supplied with running water. Large barn arranged for 10 horses and 60 cows, which the farm in its present condition will support, together with corn, carriage, wagon, poultry buildings, &c., &c.

Will be rented for a term of years at a moderate price to a good and responsible farmer.

Inquire of JOHN RINDGE, 178 Devonshire St, Room 17, Boston. oct2-3t

TRY THE MONADNOCK DISK HARROW, WARRANTED TO BE THE BEST.

Will not ridge, will not clog, is easiest for man and team. Will be sent to responsible parties on trial. Also, the only

Steel Face Field Roller.

Agents wanted. For Circulars, etc., address MONADNOCK AGRICULTURAL WORKS, P. O. Box 787, KEENE, N. H. sep20-2t

GOLD MEDAL, PARIS, 1878.

B

The Poet's Corner.

THE FARMER'S SOLILOQUY.

[From the Baltimore American.]

To sell or not to sell—that is the question;
Whether 'tis nobler in a man to suffer
His anxious creditors to fret and wait
indefinitely,
Or to take arms against a sea of troubles,
And by disposing of his scanty crop
At eighty cents a bushel—end them.
To sell! And when we've sold? Ay, there's
the rub!
For how the deuce can less than half a crop,
At eighty cents a bushel, pay expenses?
Why is the fertilizer man as downcast
As one who wrestles inwardly with unripe
fruit,
But that the certainty that out of all
The agricultural notes he holds not ten per cent.
Will at maturity be honored,
Puzzles him sorely, and compels the thought
That sometimes we had better bear the ills we
have
Than fly to others that we know not of.
For who would bear the whips and scorns of
duns,
Complaints of creditors, the law's pursuit,
The sheriff's fi. fa. and the forced sale?
Who would endure his wife's reproaches and
the groans
Of tearful daughters over last year's gowns,
When he himself might quietness secure
By promptly paying his indebtedness
And sharing his profits with his better half?
Thus half a crop, at less than cost of growing,
Makes beggars of us all; and thus
The native hue of resolution
Is sicklied o'er with the pale cast of thought,
Even on the brow of a grain broker; deals
In futures are restricted, margins called,
And enterprises of great pith and moment
Are given up; and thus the tuneful songs
And innocent mirth of its exuberant members
Gladden no more the Corn and Flour Exchange.

Frederick, Maryland, Sept. 18, 1885.

Ladies' Department.

Written expressly for the Massachusetts Ploughman

ON THE NOR'WEST; FROZEN IN.

A WHALING YARN.

BY JOHN HUBBARD WOODBURY.

Author of "A Trip Southward," "Corporal Squib on the Farm," "David and I," "The Lost Indianman," How I Found It," etc., etc.

CHAPTER XIII.

A Stormy Day.

"I say, Sam! 'pears 's if 'twas snowin'," Tanner said to the Virginian, who came down to call us at two o'clock in the morning.

"Snowing! Well, there's something in the air. If it keeps on this way we'll be buried sixty feet deep before morning!"

"*Sixty feet!*" said Tanner, a little contemptuously. "We'll need more'n that to make it interestin'. You never was up on Labrador, was ye, Samuel? There's where't snows. Sixty feet ain't nothin'. It's blowin' a little, too, I 'spect, Judge."

"Just a gentle zephyr. Come, heave ahead, you fellows, and give us a chance!"

"All right, Samuel; all right; you shall have yer chance; no need o' hurryin'."

Having got into our storm rigs, as we called them, and also put on our new mittens, we went up to take our turn in the storm.

It *was* snowing, and blowing, both. It was a driving, piercing storm. The snow felt like icy needles; it drove across our decks so spitefully that it blinded us, and for a few moments we could see nothing. But we could feel that it was already two or three feet deep along by the weather-rail, and almost up to our knees anywhere on the deck.

Wading through it, we met Mr. Luce and Tinkham in the waist, Mr. Luce carrying a lantern and Tinkham an axe and skimmer—one of the skimmers that were used for bailing scraps out of the try-pots—with which they were going to clear the hole that had been made in the ice over the side. Fortunately, the hole was on the leeward side; if it had been to windward, it would have been rather a difficult matter to have got down to it in the face of that pelting storm.

Tanner was ordered to assist, and following Tinkham over into the main-chains, the two got down on to the ice, where we could scarce see them through the drifting snow. Mr. Luce held the lantern as low down as he could reach, and we could just discern the two shapeless objects that seemed to be floundering in the drift. "We must have a shovel," called Tinkham; "the hole is covered three feet deep."

"Hold on, then, and I'll bring a shovel," answered Mr. Luce; and leaving them there, he went away with his lantern to look for one. Having found one in the steerage, he came back; and now lowering his lantern over the side by a lanyard, he passed the shovel down to Tinkham, and by the dim light we watched the two wraithly figures as they cleared away the snow, broke the thin ice, and skimmed it out of the hole.

By this time half an hour of our watch had passed. This duty, however, was all there was to perform, and there being no necessity for our standing there to be pelted by the storm, Mr. Luce told us to come aft with him into the house,—which we were very willing to do.

In the saloon at the head of the cabin stairs was a stove,—a small cylinder stove for burning coal,— a supply of coal having been provided for it,—and in this stove a fire was going; which, with the light of a large lamp, hung in gimbals, made the place seem very cheery. There was another stove in the main saloon below; though I think no use had yet been made of that.

We entered the house looking like so many snowy wraiths; but having shaken off our white robes, we sat down like ordinary mortals by the stove, and began, in low voices, to talk things over. The other boatsteerers and the cooper were sleeping in the little state-rooms around us—as was also the little woolly-headed Abe—so we talked low.

The wind was coming from the eastward, and we wondered whether it would start any of that ice off-shore. It was just possible, we thought, that it might, should it continue to blow that way for a day or two; still we should be hard and fast there in the bay, for anything that the wind could do. "But," said Mr. Luce, "the ice in here isn't so thick, yet, that we couldn't cut our way through, if it was clear outside and we had time enough."

"It will be thicker than it is now before we could do that," said Tinkham. "We don't happen to be in the ice business, you know, and haven't got the tools to work with."

"Plenty of axes and cutting-in spades," said Mr. Luce.

"But ice is different from blubber, you know; 'twould take us a week to get out without saws"

"Oh, pshaw! we'd get out in two days, if 'twas only clear outside."

"I guess we won't be likely to get out this season," said Tanner.

And so the rest of us thought. The ground for hope was too slight to build upon, and settling down to the conclusion that we would have to stay, we considered the chances of getting through the winter comfortably. We were so cosy and comfortable there in the house, while the pitiless storm was sweeping across our decks, fairly howling through the rigging above, that we foremast hands were on the point of congratulating ourselves upon being there instead of at sea.

"We couldn't be no better off, even in the States," said Tanner, "'nd's fur's I'm concerned I'm kinder glad it happened so. I've had a tech of 'bout everything except bein' frozen in, an' I've been kinder lookin' for'ard to that for some time now. But I wasn't lookin' for't in the old Ama, up here in—in—what is the latitude, Mr. Luce? if you can tell us."

"Something over seventy. We haven't taken it yet, since we came in here, but it won't vary much from seventy-one, I guess."

"Wal, that'll do ter talk about, Eph, when you get home," said Tanner to me. "You can tell 'em how we got nipped, up in seventy-one. That'll do to build on, an' then you can go ahead an' make it jest as interestin's you've a mind to. Like's not you can write a book, or start a paper, or somethin', on that, Eph; seventy-one is pretty well up, ye know, an' I s'pose you might strain it a p'int or two, on a pinch. Course 'twouldn't do to go clear up to ninety, though."

"Like as not we'll start a paper up here, before winter's over," said Tinkham, "and all make our fortunes writing for it."

"Like's not," was Tanner's reply. "Like's not. Twouldn't be a bad idea—the fortun's, I mean; they'd come handy when we get back ter the States an' have time ter spend 'em. 'Taint only once 'n awhile't we get a fortun', ye know."

"Yes, I know," said Tinkham; "but they come handy, as you say, when we do get 'em. I'm going to hang on to mine, next time."

"Same's we did ter the whale, I s'pose. Wal, it pays ter hang on, sometimes, pervidin' you don't hang on too long. There *is* such a thing as hangin' on too long,—'s the captin's wife was a sayin' ter the old man, ye know."

"Wa didn't hang on too long that time, though."

"No; course not; the blubber's all there, 'an we'll have time enough now ter try it out. I s'pose."

"We'll need that blubber to keep us warm, yet,—no hurry about trying it out. All the wood and coal we've got isn't going to carry us through the winter, by a long shot!"

"That's so," said Mr. Luce. "We'll have to depend on that blubber to carry us through, and it's a good thing for us that we've got it."

"I tell ye, mates," said Tanner, "we seem ter be in luck all round! Who'd a s'posed we'd ever have needed them last two whales to keep us warm! Proverdence is a mighty good provider, now I tell ye! We oughter be thankful, 'nd more'n thankful, 'twere's well fixed as we be. The old Amazon's a mighty comfortable old craft, 'f she *was* built for a liner. There's everything in her 't we need, an' we oughter be thankful."

"In such discourse as we sat cosily around the stove, the two hours of our watch passed away, not seeming very long. It was indeed a great contrast to our watches while at sea. After all, there was some comfort in being frozen in. And now, wending our way to the forecastle through the thick drifting snow, we struck four muffled strokes on the bell, and went down into the close atmosphere below to rouse out those who were to take their turn on deck,—or rather in the cheery house aft.

The storm had in no way abated when all hands were called in the morning, though the wind had veered to southward and eastward and the temperature was much milder than it had been before the snow began to fall. The atmosphere was so darkened by the driving storm that day still seemed far off. It was of no use to attempt to clear the decks while the snow was being driven so thickly and fiercely across them, and except for keeping the fire-hole,—as the hole in the ice over the side was called,—there was really nothing to be done.

So we were all allowed to remain in the forecastle, now,—the house aft being needed for the officers and boatsteerers,—though it was expected that every man would be ready to come on deck whenever called. The cook had been called out at five o'clock, and at seven our breakfast was passed down to us,—two kids full of hot scouse, with our usual allowance of muddy coffee. We were allowed to help ourselves to all the hard-tack we needed, a bread-cask always standing open in the steerage. We ate our breakfast by lamp-light, but as we did not have to hurry we rather enjoyed it.

The storm continued all day, the wind hauling more to southward, however, with a constantly rising temperature, it became so warm before night that the snow, which had been growing thinner, finally turned to a light, misty rain. But the wind increased, rather than diminished, the farther it got to the southward, and during the first part of the next night it blew a furious gale.

But about midnight the wind lulled, and before morning we had only a light southerly breeze, with a clear sky. When the sun rose it covered the bay and all the hills around with a dazzling brilliance; so dazzling that it was almost blinding.

The snow was of course very impact, though, owing to the wild temperature, only a very slight crust had formed. Our first work was to clear the decks, and all hands being put to that, in no very long time we had the snow that had encumbered them all over the side. Then we were ordered aloft to loose and shake out the sails, some of which had already been half loosed by the wind and were loaded down with snow that had been driven into the gaping cavities. The gaskets were now all cast off, the buntlines and clewlines overhauled, the loose snow shaken clear, and then the sails were allowed to hang for the time in the sun that they might become dry.

Being one of the lightest hands, my place aloft was highest up, on the top-gallant and royal yards; and now, when I went up to loose the main-top-gallant sail, I saw the clear, blue sea not more than three miles away. "There's clear water out there!" I cried to those who were below me, and mercy was heard by the captain, down on deck.

"What's that?" he called up to me.

"Clear water, sir!—not more than three miles off!"

"Is that so?" and without further question the captain took his glass and came up towards me. "Clear water, eh?" said he, as he passed me, still keeping on, and seating himself on the cross-trees above, where he adjusted his glass and took a good look out seaward.

The view was to northward, the high ridge hiding the sea westward, but to northward it was evident that the greater part of the ice that had shut us in had drifted away, though there was still a belt along the shore of some two miles in breadth.

I finished my work and went down while the captain was still looking out from his lofty perch, and upon reaching the deck I was met by Mr. Weeks, who said, jokingly, "So we're going clear, are we?"

"I don't know about that, sir, but there's clear water anyway, and it looks as though it might come nearer."

Nearly all the mates and boatsteerers were near enough to hear what I said, and immediately there was an intensely eager look in every face The bare possibility of going clear showed how reluctant they were after all to remain. For my own part, my hope carried me quite beyond all reasonable limits of expectation. I had seen nothing that would really warrant me in saying that the clear water appeared to be coming nearer—it was hope, and hope only, which said that.

But when the captain came down, he confirmed my words. "There's a good deal of loose ice outside," he said, "and if the wind holds to southward it may be that it will set it all away."

"Then we had better be getting out of this," said Mr. Weeks. "The ice in here isn't so thick, yet, but that we can cut our way through, if we have time."

"No; and there'll be no harm in trying, whether we get clear or not. Set all hands to work on the ice, Mr. Weeks, and we'll see what we can do." And then for a few moments the captain was absent in the cabin.

Never did men go more readily to work than did we then, to try to get clear of that icy grasp. Even Uncle Jim did not spend a breath in growling, that day. Taking only a short half-hour for each meal, and just time to roll up the loosened sails, we worked till far into the following night, and moved the ship nearly half a mile.

First, we had to shovel off the snow, which was about a foot and a half in depth, out away from the ship, making a pathway through it some fifty feet in breadth, and then, with axes and spades—those broad-bladed and keen-edged chisels that were used for cutting blubber—we cut the ice into great cakes, which we canted downward, by means of pikes and boat-hooks, and shovel beneath the uncut ice on either side.

As the ice was not yet much over eight inches thick, we made such headway that when night came we had great hope of going free. The wind still came from the southward, when the sun went out of sight, and the width of the ice belt outside, up to that time, had been constantly decreasing. Of course, we could do nothing at cutting our way through that thick outer ice; but it looked, when night came on, as though if the wind should hold to the southward twenty-four hours longer, so much of the ice would have drifted away as to leave the foot of the bay free for our exit, could we but reach it; and encouraged by this prospect we continued our work far into the night.

It was past midnight, I well remember, when our efforts ceased. And it was with very heavy hearts indeed that we brought them to a close. For the wind had veered, and now came from the westward; its soft southern mildness was gone. It blew in strongly, now, from the west—though, being protected by the ridge, we did not feel its full strength where we were. But we could hear the grinding of the ice, out seaward, as the great loose masses came crashing back. There was a chilliness in the very sound, and as we stopped in our work to listen, our hearts sank, and we said it would be of no use to labor more.

"It's all up with our getting out," said Mr. Weeks; "all up for this time; we'll have to stay here eight months, sure."

The captain was with us—indeed no man had worked harder than he all that day—and he, too, said it was of no use, that we might as well go on board and make the best of it. "Fate is against us," he said; "or it may be that Providence has ordered that we shall stay here for some good purpose. At any rate, we must submit; and we may as well do it with a good grace and a hope that good will come of it."

"It's the thunderin' wind," said Uncle Jim; "tain't likely 't Proverdence had anything to do with it this time. The blarsted wind! there's no dependin' on't, up here."

Whether it was Providence or the wind, it was so evident, at length, that it would be of no use to labor longer, that the captain ordered us all to go on board; and with the ship hauled close up within her icy walls, the watch was set, and all but the six whose turn it was to be on deck went below.

[TO BE CONTINUED.]

THE FIXTURES OF A BATHROOM.

"In discussing the fixtures which are to be placed in your bathroom, let us begin with the bathtub. As regards the material for the tub, you have a choice between enameled cast iron tubs, tinned and planished copper tubs, and those of all earthenware molded in one piece. Occasionally bathrooms are fitted up with a bathing basin of larger size, made of blocks of marble or of tiles, laid in hydraulic cement, the whole basin being sunk in the floor and accessible by marble or stone steps leading down to it. Such an arrangement may be convenient, and it is certainly luxurious, but it also proves to be rather expensive, and an ordinary-sized tub will, I suppose, fully answer your purposes. The cheapest tubs are wooden tubs, but they soon get offensive, the wood rots, and leakage is inevitable. Zinc tubs are not costly, but they do not last long. Tin tubs are better, and also less objectionable in appearance. Porcelain bathtubs are much the cleanest, brightest and attractive looking, and, being highly glazed on the inside surface, they are thereby rendered entirely non-absorbent. They are, as might be expected, quite expensive, and, if you do not care to incur such an outlay, I will recommend you to adopt a tinned and planished bathtub of not less than 20 oz.—and better, 24 oz.—weight of copper. Lighter weight tubs are too easily dented and knocked out of shape. Of course, you understand that what is commonly called a copper bathtub is really a wooden tub, blocked out to the desired shape, and lined with copper. In England and on the Continent, buthtubs are often used, made entirely of strong copper, which stand without any wood enclosure, and such tubs offer advantages in so far as they can be fitted up without woodwork, being set on strong metal legs, and standing entirely free on the floor of the bathroom."—[William Paul Gerhard, in Good Housekeeping.

A MAIL-GUARD'S STORY.

Reader, have you ever been obliged to wait at a small country railway station for an early train? If you have not, you have not experienced the *ne plus extra* of human misery. But, when, as was my case last year, you have left a jolly party, driven five miles to catch the mail at two A. M., and found, on your arrival at the station, not that the train had gone—for that would be a relief—but that you had mistaken the time, and had got three-quarters of an hour to wait, your lot is not an enviable one. So I thought as I stamped up and down the ill-lighted platform and gazed into the darkness beyond, which was only broken by the dim and misty light of the "distance" signal, some hundred yards down the line. The occasional barking of a house-dog alone broke the stillness, except when now and then the autumn breeze played in a wailing tone on the telegraph wires over my head. As I paced up and down to warm my feet, I felt regularly "savage" that the well-meant solicitations of the company assembled at the Beeches had induced me to forego that last waltz with Minnie Cameron, and hurry to the station.

I had been staying for the last fortnight at the house of a relative, and what with shooting, fishing, and (must I confess it?) occasionally flirting with the blue-eyed Minnie, the days had passed rapidly; and, when recalled to London by my father's business-like letter, which hinted at some impending calamity connected with our firm, I could hardly believe that my leave had so nearly expired. There was no help for it, and go I must. My relatives appeared as sorry as I was when I announced my intended departure, and I fancy I could discern traces of tears in Minnie's sunny eyes as I bade her farewell in the hall that evening, bearing with me a shining tress of her flaxen hair and a hasty kiss, as souvenirs of my visit. Oh, Minnie, Minnie! what would that excellent man, the incumbent, think, could he have seen the shining token of what I fancied was your affection, as I was lying on my table prior to its being committed to the flames, with a bundle of letters, when last month I heard you were "engaged"?

Under such circumstances as I have described the reader will easily imagine I was not in a particularly cheerful frame of mind on the night, or rather morning, in question. I sauntered into the dreary waiting-room, and, lighting a cigar, seated myself in front of the expiring fire, which I was even denied the amusement of stirring, the authorities having carried away the fire-irons. Placing my feet upon the fender, I lay back in my chair, and, as most men would have done, I began to ruminate upon the events of the last fortnight—on Minnie! After a time I aroused myself and attempted the perusal of my father's letter, and then I fell fast asleep. How long I slept I cannot say, probably about five minutes, but it seemed an age, when I was aroused by the cracking of the "brakes" of a train. I started up and rushed blindly to the door, fancying that the mail had come in, and that I was in violent contact with a guard who was entering at the same moment as I was making a hurried exit.

"Beg your pardon, sir," said the polite official; "what's the matter?"

"My train is going, I think," said I. "Let me see."

"It's only a down goods and cattle, sir," replied my companion, "which shunts here. The up mail ain't due for nearly twenty minutes yet."

"Cold night, sir," remarked the guard, as he came towards me.

"Yes," said I, "and a wretched fire, too."

"I think we can mend that, at any rate," he replied; and, entering the room, he returned in a few minutes, accompanied by an individual whom I rightly conjectured to be the stoker of the "goods" train, carrying a large shovelfull of live coals, which, placed upon the cinders, soon improved our fire, and gave quite a cheerful aspect to the dreary apartment.

"Thank ye, Jim," said the guard, as the stoker departed. "Now, sir, that's an improvement, ain't it?" he added, cheerfully.

"It is, indeed," I replied; "and I am much obliged to you for procuring the coals."

"Don't name it, sir," was the reply. "One must do something when one has to wait, you know."

"How long do you remain here, then?" I asked.

"Till 3.40, sir. I take up the mail," was the reply.

"Oh, indeed," said I.

"Yes, sir. I'm on this job all this month." And, as he spoke, the guard drew a pipe from his pocket, and, having filled and lit it, he began to smoke in silence.

"Have you been long on this line?" I asked, after a pause.

"Well, sir, about three years, and on the mail duty, on and off, about one. I'm a reg'lar man of letters," he added, with a grin.

I laughed, and he continued.

"I was nearly choked with a capital letter when I was a baby. I had letters on my collar when I was in the police. I was made a guard all along of a bit of a letter. And now I am a guard, I looks after the letters."

Having made these remarks in a jocular tone, my companion gave me a knowing nod and puffed away at his pipe with greater vigor than before. I was amused at his rejoinder, and asked him what he meant by having been made a guard "all along of a bit of a letter."

"I wasn't always a guard, sir," he said. "I was once in the police, and it was through being a detective as I got to be employed on this line."

"I suppose you didn't like the police, then?" said.

"Well, sir, not much, though at times it was pretty good, and we had some jolly business. Aye," he continued, "with a good scent it's almost as excitin' as fox huntin', is thief catchin'; for some of those fellows is as cunnin' as foxes, every bit. It was through a robbery and a bit of paper that I was made a guard, as I said just now."

"How was that?" said I, catching at the idea of a story to beguile the time. "I should like to hear a bit of your experience as a detective."

"It ain't much of a story, sir, but I'll tell it to you with pleasure," and, taking a few rapid puffs at his pipe, the guard commenced.

"It was about two years ago, and there had been a great plate robbery in the city, and the thieves had got clear away, so we were all obliged to keep our eyes open and our wits about us, for, though we had some suspicions, there was no real clues to go upon; it was mostly guess work. Two or three men was arrested, but nothing was ever proved against them, and they were let go, in course. Nothing ever transpired respecting the robbery, and it was almost forgotten, except by some of us detectives, for a reward of £100 had been offered, and we was, in course, anxious to catch the men, as well for the credit of the force as for the money, which, sir, was not by no means to be despised. Well, sir, I wasn't half satisfied about one of the men who had been arrested, and whose name was Dover. He and another was always together, and we in the force nicknamed them 'Chatham and Dover,' in consequence. We had 'Chatham' (whose real name was Byles) up, too, but nothing turned up. However, one night after the business had blown over a bit, I thought I'd have a look after Dover, so I goes to where I was sure to find him or his 'pal,' in an out-of-the way place, near Field Lane. When the door was opened, I saw as the woman was a new hand, and didn't know me. So I asked if Dover was in. 'No,' says she, 'he's gone out of town.' 'In which direction?' says I. She pointed upwards, which meant north. 'Indeed,' says I. 'Well, I tell him as Mr. Moss wants to see him as soon as he returns,—makin' a shot, sir. I was at a man as I suspected was a 'fence,' and who I had my eye on. 'All right,' says she, and shuts the door.

"Thinks I, I've not done a bad stroke of business this evening. Mr. Moss and I will settle our little account now; so I went quietly home. Next afternoon, just after dinner, a message comes from the ——Bank for Mr T——, our inspector. Telling me to be ready in case of bein' wanted, off he goes, and, in about an hour, he came back, and said: 'We've got a job to-night,' he says, 'for a party has wrote another gentleman's name by mistake, and bolted with a large sum of money and his young woman, as is supposed, money and his young woman, as is supposed, to America.' We had to start that evening by the nine o'clock train for Liverpool, which we did, and arrived there about four the next morning. We immediately put ourselves in communication with the local authorities, and searched several out-going ships, but without any success. Just as were leaving one of the vessels, the captain said to me: 'It's a pity you didn't know a little sooner, for an American bark sailed yesterday's tide for New York.' 'The devil it did,' said Mr. T——.'

"'Yes,' says the captain, 'and you may depend upon it your man was off in that vessel.'

"'We're done, then,' says Mr. T——, 'and will have to go back with our tails atween our legs.'

"'Well,' says I, 'I don't see that, by no means. When does the mail go?' I asked the captain.

"'It's gone,' says he; 'went last night.'

"'That's no good, then,' says Mr. T——. And he was very angry at bein' done.

"'I think, Mr. T——,' I says, as we walked away. 'I think we can catch him yet.'

"'How?' says Mr. T——.

"'Why,' said I, 'let us take the mail steamer to Dublin this afternoon, and go by the mail train to Queenstown; we can catch the steamer there, and pin your man in New York.'

"'By jingo, we will!' says Mr. T——; 'that's a good idea; only I'm afraid I shall have to go alone; for you will be wanted in London, you know, next week.'

"I had forgotten that, and was very much disappointed at not being able to accompany Mr. T—— to New York.

"'However,' says he, 'I'll not forget you when I come back.'

"And, in order to arrange our plans and have some breakfast, we returned to the railway station. Well, I saw Mr. T—— off for Holyhead, and felt very much annoyed at not being able to go with him, though, had I known it was the best thing that ever happened to me, I shouldn't have felt so sulky, you may depend. As the boat left the landing-stage, I turned into —— street, and walked about a bit until I saw a great crowd opposite a jeweler's shop. 'What's up?' thinks I; 'anything in my way?' So I asks a bystander, and he told me that an immense amount of jewelry had been stolen the previous night, and there was no trace of the robber. 'Ho, ho!' I thought. And I asked to see the owner of the shop, and, telling him who I was, I requested to see some traces of the thief's work, for, sir, some men work in exactly the same way at all their 'cracks,' and you can tell their 'hand-writing' after a bit of practice. I, therefore, examined the place, and, as I suspected, found that this robbery had been done in a similar way to the one in London. For it had occurred to me that Mr. Dover had not left London for nothing, and now I was pretty sure that he and his 'pals' had done this job as well. After making my inspection, and asking the proprietor to say nothing about my visit, I returned to Lime Street Station. I then found that I could return to London by a slow train at, one o'clock, which, as I had nothing to do in Liverpool, I preferred to take rather than wait for the 3.45 express. I was in much better spirits now than I had been, and, as I entered the train, I made up my mind to look after Dover in London, whither I never doubted he had returned; for, of all hiding-places, sir, London is the best. So I made myself as comfortable as possible. Nothing happened till, as we were nearing Stafford, a bit of paper was blown into my face, and as I, out of mere curiosity, stooped to pick it up from the seat where it had fallen, two other and larger pieces came in and fell on the floor.

"There was no one else in the compartment, so I put the scraps together, just to see what I could make out of them, and, to my astonishment, I read:

"'I will be at 2 o'clock
you do it. I, Dover—
—Good time.'

"That was all. The last words, on the smallest bit of paper, I didn't care for, but the other parts made my heart jump when I read them, for I made sure that I should now catch Mr. Dover for the robbery at Liverpool The instant the train stopped, out I jumped, and began looking into the carriages as I passed, pretending I had lost something.

"As I came to a carriage near the engine (a second class), on the door of which I could see several bits of paper, and, upon going in, I found (for the carriage was empty) an envelope, addressed to some place in Camden Town, in the same hand-writing as was on the bits I had.

"While I was examining the envelope, I saw three men coming from the refreshment room in the direction of the carriage, so I seated myself in a corner next the door and shut my eyes. I was more than ever convinced that I had now got a clue to the Liverpool job, and I determined to keep my eye on the former occupants of the carriage, who now returned to their seats.

"The smell of rum which pervaded the department convinced me that they had been indulging pretty freely, and while they were in earnest conversation I opened my eyes, and sitting nearly opposite to me was Dover himself; the other men I did not know. Before the train got to Rugby they were all fast asleep, and as soon as we stopped out I jumped, and left them still snoring."

"Did you went for assistance, I suppose?" said I.

"No, sir," replied the guard, with a knowing wink. "I wanted them in London, not Rugby; for, ye see, by keeping the train I might have excited suspicion, and my birds might have flown. No, sir, London was their destination, and I could catch them on their arrival."

"Well," said I, "but you left the train, you say?"

"I did sir, for it occurred to me that the 3.45 up express from Liverpool was due, and I knew that it left Rugby a few minutes before the train in which Dover and his friends were. Just as I got out and had shut the door, I had the satisfaction of seeing the train shunted, to make room for the express, which came up a few minutes after. I was soon on my road to London, where I arrived about nine o'clock.

"I had just an hour and a-half to make my arrangements, and while my men were quietly jogging along near Bring, in the slow train, I was whirling on to Bow street. Notwithstanding the lateness of the hour, I was soon in possession of the necessary authority, and taking two of our men with me, I returned to Euston Square.

"We had to wait some little time, but the train at last arrived, and I led the way to the carriage in which I had seen the fragments. They were just getting out as we reached them, and a gentle grasp of the collar and a word in the ear soon reduced them to a terrified silence. Their baggage was also seized, and in a portmanteau was found a quantity of the jewelry which had been stolen in Liverpool.

"We had them up next day, and they were fully committed. At the trial one of them turned evidence, and by those means the city burglary was proved against them. The rewards were paid over to me after the trial, and I was very much complimented by the judges on the manner in which I managed the capture."

"I think you quite deserved the rewards," said I; "but what became of the inspector?"

"Oh, Mr. T——, sir. He went across, as I had told him, by the mail from Queenstown, and got to America the day before the ship in which the forger was.

"He boarded every ship, and from the description he had received he caught him afore he went on shore. There was no doubt about him, for some of the identical notes which had been issued in London were found upon him.

"Mr. T—— didn't bring him back, sir. He only took possession of the money, for he thought it would cost more to bring him home and prosecute him than to leave him where he was. The bank gentlemen said he was quite right, and gave him £50 for his trouble. When he returned to England, one of the directors of the bank, who is our chairman, sir, was complimenting Mr. T—— upon going to Ireland; and then Mr. T—— spoke up for me, and knowin' as I didn't care about the force, he told the gentleman so, and he, after a time, offered me the place I have now, with a promise of a 'rise' if I behaves myself. So you see, sir, it was, as I said, all through a bit of a letter as I got to be a mail guard."

"I am very much obliged to you," said I, "for your narrative; it has amused me very much, indeed."

"I am very glad to hear it, sir," replied the ex-detective, "and—you'll excuse me, sir—but I think I have seen you afore."

"Very likely," said I, laughing, "your experience has doubtless led you across my path."

"Ay, I thought as much," said the guard. "I see you when Mr. —— offered me the post I have. I remember you was a comin' in as I left the bank."

"I dare say I did, for my father sees a great many people at the bank," said I.

"Is your father Mr. George Somerville, as lives near H—— when he's at home, sir?"

"Yes,' said I; "I have just been at my uncle's house now, and am on my way to London, where my father is at present."

"Well, that is curious, sir," said the guard, touching his cap, "as I should see you here this evening, and I am proud to have met you, sir."

I replied, and the guard running to the door, exclaimed. "Here's the mail, sir; if you'll show me your things I'll see that they're all right." And once more touching his cap, he withdrew. The mail soon drew up, and having been comfortably bestowed by the guard, as we spun over the distance that lay between S—— and the metropolis, I pondered on the singular story I had heard until I fell into a doze, and from which I was not thoroughly awakened until the train stopped to take tickets.

We were soon afterward run into the station, and as I stepped out of the carriage I found the guard ready to assist me. He soon extricated my portmanteau from the heap at the end of the platform, and insisted upon carrying it to the entrance of the station, for, strange as it may appear, there were no cabs in attendance that morning. As we emerged into the street a hansom drew up close to the "departure" entrance, and the guard hailing John, we waited until the fare had alighted. What was my astonishment to find that the gentleman who was about to take his departure thus early from London was no other than my father's confidential clerk, respecting whom my father had already communicated his suspicions in the letter I had received the morning before. I started involuntarily at the sudden appearance of the very person whose affairs I had come to London to investigate, and followed his retreating figure with so earnest a gaze that the guard, who had been observing me closely, said:

"Beg pardon, sir; do you know that gentleman?"

"Certainly, I do," I replied; "I've come up on his account. Mr. Barton is my father's confidential clerk; but I'm afraid all is not quite right," I added, thoughtfully, and in an undertone.

"I suspect there's a little game," said the guard. "The man as is gone in there was called Byles three years ago."

I was struck with astonishment at this remark, and asked my companion if he were certain that the *soi-disant* Barton was in reality Byles alias Chatham.

"As certain as I stand here," replied the guard, "and take my word for it, he's after no good. If you don't think me presumin', I should like to hear what's up."

"Well," said I, "the matter is a confidential one, but I may tell you that we have reason to suspect that Mr. Byles' accounts are in a most unsatisfactory state. Can you not intercept him, for I think he intends to bolt?"

"We shall soon seen that, sir," replied the guard, his detective nature showing for a moment. "He will be easily caught, I reckon;" and as he spoke the ex-policeman led the way to the departure platform.

Here, amid the crowd of people who had taken their tickets and were struggling to enter the different carriages, it was no easy matter to recognize Mr. Barton, who had doubtless his own reasons for eluding observation; and it was not until five minutes prior to the departure of the train that I observed him ensconced in a corner of a third-class carriage."

"Good-morning, Mr. Barton," I said, "you are off early to-day."

The person addressed changed color as he recognized me; but immediately recovering his self-possession, replied:

"Yes, sir. Mr. Somerville wished me to see C—— & Co. respecting those bills we hold as soon as possible, and I am on my way down."

"But they are all right," I said, "for my father told me so last week."

"Yes, sir," said the clerk, "but my mother is very ill—dying, I fear, and as Mr. Somerville kindly told me to go down to F—— I said I'd do the bill's, too." And having given vent to this contradictory speech, the clerk blew his nose violently.

The cool way in which this was said, and the curious looks of the other occupants of the compartment, at any other time would have excited my suspicions; but a gentle touch on the arm reminded me of the presence of the guard, and I therefore said loudly, "Oh, you are going to F——?"

As I spoke the guard said suddenly, and touching his cap respectfully:

"Beg your pardon, sir; did you say you were going to Exeter?"

"No," I replied, "but this gentleman is," indicating Mr. Barton as I spoke.

"Very sorry," continued the guard, "but he can't go by this train; he must wait for the Parliamentary at 8.05. Tickets, please," he added, suddenly opening the door. All the tickets, with the exception of the clerk's, were immediately produced. "Now, sir, your ticket please!" said the guard. Thus brought to bay, Byles alias Barton had no alternative, so he handed the guard his ticket, and suddenly rising, attempted to leave the carriage, but the detective was too quick for him. Before the clerk's foot had touched the platform a grasp was laid upon his collar and the carriage door closed. "I thought as much," said the guard as he looked at the ticket, holding the unhappy Barton the while; "I thought so; going abroad was you, sir? But I want you for a moment."

He then, asking me to open the door, again descended from the carriage, forcing Barton to follow him, when, having gained the platform, he whispered a few words in his ear.

The man grew as pale as death, exclaiming: "I never did! I swear I never did!"

At that moment the whistle sounded, and with a hiss and a scream the train moved away. Life, liberty, hope—all seemed to fade away from the unhappy wretch as the carriages passed him, and with an almost superhuman effort he wrenched himself free from the guard's grasp, and attempted to open one of the doors of the departing train. Cries of "Stop him!" were raised by the spectators while the guard hurried in pursuit, but his efforts were of no avail.

Before any one could seize the fugitive his foot had slipped, and, still clinging to the handle, he was carried along for a few yards, and then dashed between the platform and the now rapidly moving train. A despairing cry and a deep groan were heard even above the rattle of the wheels, and the train passed on, leaving the mangled, yet still breathing, form of the unfortunate clerk stretched across the rails.

Assistance was immediately procured, but it was no use. Death soon put an end to his sufferings; but before he died the unhappy man confessed his guilt to me and asked my pardon. It appeared he had been induced to embezzle sums of money to repay losses at play with his old associates, and he had thus been led to return to a path of life which he intended to have quitted forever when he entered my father's business. He had contrived to possess himself in all of about £6000 in bills and notes, some of which to the value of £2000 were found upon him. The remainder had been made away with, and were never recovered.

* * * * * *

Having made such arrangements as were necessary, I left the station and proceeded home to communicate to my father the tragical termination of my journey, when I found he had taken steps for arresting Barton on his appearance in the city, circumstances having arisen which placed his guilt beyond question.

My father was much moved and interested by the details of the death of his unhappy clerk, and by my recital of the circumstances of my meeting with the guard, who had fully repaid the interest my parent had formerly taken in him.

The fortunes of our house soon recovered from the blow which the misguided Barton had managed to inflict upon our credit, and I consider the prosperity of the firm of Somerville & Co. is due to my accidental meeting with, and the story told me by, the mail guard.

FASHION NOTES.

There are a great many opinions as to the best way of making a skirt stand out at the back, and steels are tabooed. French dressmakers are employing the double mattresses cut into the waist, but standing out square, and they are covered with satin, so that the material, whatever the skirt may be, does not adhere to it. The same remarks apply to evening dresses, but the measurements are different. A good length would be sixty-two inches long at the back and forty-six in front, the front breadth in this case also twenty-five inches, straight; as to width, the front fourteen at the top and twenty-five at the bottom; the front gores ten at the top and seventeen at the bottom; the back four at the top and nine at the bottom. In making up skirts, be sure to have the lower part so lined up that it is stiff and firm; there should always be a kilting or plaiting quite at the edge to throw it out, not necessarily to show.

If you want a really useful washing dress, not always in the wash-tub, choose a dark blue linen; you can make it very simply at home, with kilts or box-plaits from the waist, a short drapery in front, and a full, plain tunic piece at the back, a bodice full back and front, a belt and buckle at the waist. One grand secret, it would seem to me, of dress, is trimness. With a general pervading neatness in every detail, there is often better style than with rich materials.

Linen collars of the all-round type are being worn once more by English women; and I notice that with the high straight collars now worn, attached to the dress, a band of lace is usually placed turning down over it, the linen collar showing above; the same at the wrist. It is soft and pretty, and takes from the masculine aspect of the linen collar. French women dress the throat in totally different fashion; perhaps the climate has something to do with it, for all the dainty laces and frillings they affect remain fresh longer, or, at all events are never worn when they are not perfectly clean. They rarely have anything light and high around the throat; the collar of the dress turns down often in two points in the front, and an opening of the slightly V-shape, not at all large, is frequently seen on the best dresses. French women have completely mastered the science of the laundry; and the hem-stitched, lace-edged ruffles are constantly washed. When linen collars and cuffs are worn, they are, as a rule, embroidered or printed in colors, and are far better suited to French than to English women. In many ways now France is losing its sovereign sway in the realm of dress. American women come to Paris, look around and make up their minds as to what is the best there, and buy in England. French women themselves are extensive patrons of the English tailors who come to Paris, but they do not exercise British skill in other departments of dress, unless it be materials, which they sometimes buy in England.—[Paris Letter, in Cassell's Family Magazine, for October.

NATURE'S STOREHOUSE,

Or, How Phillipa Became an Interior Decorator.

BY MAX VANDER WEYDE.

When Phillipa and I were married we had a certain amount of money set by to build a house with. It was a good deal of money for a young couple, but we wanted a good deal of house. I had been reading Ruskin aloud for some time, and we were both